SANTOSH

Deemed to be University

3.7.1: Average number of Collaborative activities for research, faculty exchange, student exchange/ Industry-internship etc per year

S. No: 202

Title of the Collaborative activity: Assessment of Liver Function Test in HIV-HBV Co-infected patients at ART Prayagraj, Northern India.

Name of the collaborator: 1. Misra Vatsala Pathology Department,M.L.N.Medical College, Prayagra, 2. Chakraborty Arindam Microbiology department, M.L.N.Medical College, Prayagraj

Name of the participants: Monica, Bisht D, Misra V, Chakraborty A.

Year of collaboration: 2018-19

Nature of the activity: Research

S. No: 202

Original Research Paper

Volume-9 | Issue-1 | January-2019 | PRINT ISSN - 2249-555X

Microbiology

ASSESMENT OF LIVER FUNCTION TEST IN HIV-HBV CO-INFECTED PATIENTS AT ART PRAYAGRAJ, NORTHERN INDIA

Monica	PhD Scholar,Department of Microbiology,Santosh University ,Ghaziabad
Bisht Dakshina*	Microbiology Department, Santosh Medical College,Ghaziabad *Corresponding Author
Misra Vatsala	Pathology Department,M.L.N.Medical College,Prayagraj
Chakraborty Arindam	Microbiology department, M.L.N.Medical College,Prayagraj

ABSTRACT **OBJECTIVES:** 1.To detect the prevalence of hepatitis B virus in HIV positive individuals
2. Impact of HBV- HIV on liver function tests.

MATERIAL AND METHODS: A total of 2163 confirmed HIV positive (WHO strategy III) treatment naïve patients enrolled for first time at the ART center were screened for HBsAg by ELISA. LFTs were performed in HIV- HBV coinfected (n=113) and from HIV monoinfected patients(n=100; control group).

RESULTS: In HIV-HBV co-infected patients the amount of ALT is increased in (62.8%vs 26%) , AST in (25.6% vs 19%) , ALP in (34.5%vs 17%) ,serum Bilirubin in (53%vs8%) was found to be considerably higher as compared to HIV infected persons only and the difference was statistically significant .Hypoalbuminaemia was seen in 46.9% of HIV- HBV coinfection and only in 16% of HIV patients.

CONCLUSION: HIV/HBV Coinfected patients had significantly higher serum bilirubin ,ALT alkaline phosphatase and lower albumin.HIV infected individuals face increased risk of hepatotoxicity from anti-retroviral therapy. So prior to the initiation of antiretroviral treatment (ART) monitoring Individuals with HIV-HBV coinfection should have both the infections completely assessed, in order to decide on the best therapeutic option for both viruses.

KEYWORDS : HIV/HBV Coinfection, LFT,HBV,HIV

INTRODUCTION

Liver disease caused by chronic hepatitis B virus (HBV) is emerging as a significant cause of morbidity and mortality among human immunodeficiency virus (HIV)-infected individuals. [1]HBV and HIV have common routes of transmission and endemic areas, but HBV is about 100 times more infectious. [2]The worldwide epidemic of hepatitis B and HIV have led to new understanding of the complicated interactions between these two viruses. HBV co-infections in HIV positive individuals is of utmost importance due to the underlying consequences such as the hepatological problems associated with these viruses, which have been shown to decrease the life expectancy in the HIV-infected patients. It is characterized by more rapid progression of liver disease including accelerated fibrosis, cirrhosis and hepatocellular carcinoma and higher liver-related mortality and morbidity. In addition, there are reports of complex interactions with antiretroviral therapy (ART) including hepatotoxicity, reactivation of "silent" HBV infection and immune reconstitution syndromes (IRIS).[3]There is lack of data regarding correlation of liver enzymes and CD4 cell count among HBV-HIV coinfected patients. Hence the present study was performed to see effect on liver function test of HBV-HIV coinfected patients.

MATERIALS AND METHODS:

STUDY SAMPLES:

The present study was carried out in the Department of Microbiology, Moti lal Nehru Medical College, Allahabad from December 2013 to November 2016. HIV positive cases diagnosed as per National AIDS Control Organization (NACO) guidelines were included.[4] A total of 2163 consecutive confirmed HIV positive (WHO strategy III) treatment naïve patients (age: 18–60 years) who were first time attendees at the ART centre were screened for the study and anonymously tested for hepatitis B surface antigen (HBsAg). None of these patients gave a history of vaccination against HBV. None of the patients received antiviral therapy against HBV. Patients with age < 2 years , >60years and pregnant women were excluded from the study. All patients were subjected to CD4 count and liver function tests (LFT). This research protocol was approved by the Institutional Ethics Committee of Moti lal Nehru Medical College, Allahabad.

serology:

All 2163 HIV patients samples were screened for HBsAg by ELISA test (Hepalisa J. Mitra and Co. Private Limited India).One hundred and thirteen consecutive HBsAg reactive patients were enrolled in this study after obtaining written, informed consent.

Biochemistry:

Liver function tests including alanine aminotransferase (ALT), aspartate aminotransferase (AST) serum bilirubin, serum alkaline phosphatase (ALP) and serum albumin were carried out for all patients using a fully automatic autoanalyzer (Olympus AU 400 Clinical Chemical Analyzer, Japan) on the same day of blood collection. Normal range: Serum ALT: 10–40 U/L; serum AST: 20–40 U/L; serum bilirubin: 0.2–1.1 mg/dL; serum ALP: 25–120 IU/L; serum albumin: 3.5–5 g/dL. CD4 T-cell count estimation was done by FACS Calibur™ flowcytometer (Becton Dickinson, California, USA).

Statistical Analysis:

Comparison of liver function tests of HIV mono-infected and HIV/HBV co-infected patients was done by software SPSS 17.0 (USA)

RESULTS

A total of 2163 consecutively confirmed HIV positive treatment naïve patients were screened for HBV at ART centre. HBV Coinfection was seen in 113(5.2%)HIV positive patients. Of these HBV/HIV Co-infected patients 76(67%) were males and 37 (33%) were females with 5 (4.4%) patients in the age group of 2-20, 73 (64%) patients in the age group of 21-40 years and 36 (32%) patients in the age group of 41-60 years. 76 (67%) patients were illiterate. Most common risk factor observed was sexual contact (82%) followed by spouse positivity in 21 (18.5%) patients and history of blood transfusion in 8 (7%) patients. Only 56(49.5%) patients were alcoholic. Majority of the infected population (73%) were from rural area.

A subject was divided into two groups : Those with HIV alone and those co-infected with HBV. The mean age of HIV infected was 34 years. Majority (59%) of HIV patients were of age 21-40 years as in HIV-HBV Coinfected patients as shown in (table 1).

Table 1:Comparison of sociodemographic characteristics between HIV monoinfected and HIV/HBV Co-infected individual

Variable	HIV Monoinfected (n=100)	HIV-HBV Coinfected (n=113)
Male gender, number(%)	71(71%)	75(66%)
Risk factors for HIV/HBV Co-infection, number(%)		
(i)Heterosexual	76(76%)	82%
(ii)Men who have sex with Men	1(1%)	None
(iii) Injecting drug use	9(9%)	6(5%)
(iv)Blood transfusion	5(5%)	8(7%)

1).Among HIV/HBV Co-infected individuals with CD4 count <200cells/µl median serum albumin level was lower as compared to

S. No: 203

Title of the Collaborative activity: Isolation of Beta Lactamases Engendering Lactose Fermenters from Different Categories of Neonatal Sepsis Cases.

Name of the collaborator: 1. Ved Prakash Sharma Professor & Head , Department of Microbiology, Rohilkhand Medical College & Hospital, Bareilly, U.P, India, 243006

Name of the participants: Mishra P, Bisht D, Sharma V P, Goel V

Year of collaboration: 2018-19

Nature of the activity: Research

Original Article

Isolation Of Beta Lactamases Engendering Lactose Fermenters From Different Categories Of Neonatal Sepsis Cases

Prem Prakash Mishra*, Dakshina Bisht , Ved Prakash Sharma***, Varun Goel****

*PhD Scholar, ** Professor & Head, Assistant Professor, Department of Microbiology, Santosh Medical College & Hospital, (Santosh Deemed to be University, NCR Delhi), Ghaziabad, NCR, U.P, India , *** Professor & Head , Department of Microbiology, Rohilkhand Medical College & Hospital, Bareilly, U.P, India, 243006

Abstract: Background: The escalating incidence of ESBLs and Amp C producers in various grievous clinical conditions has convoluted treatment strategies. The objective of this study is to determine the incidence of ESBLs and AmpC β-lactamase producing *Escherichia coli* and *Klebsiella spp* from different types of neonatal sepsis cases. Methodology: This cross sectional study included 382 blood samples which were processed by standard microbiological methods. A.S.T was carried out by Kirby Bauer disk diffusion method as per CLSI guidelines. The presumptive producers of ESBLs were confirmed as per CLSI guidelines (2015). Inducible AmpC were detected by Disc antagonism test (DAT) and E test. Results: The blood culture positivity was 32.46% (n=124/382) which was higher in males (34.36%) as compared to females (29.67%). Culture positivity among the EONS and LONS cases were found to be 47.38% and 52.42% respectively. There was dominance of Gram negative isolates (58.87%) over Gram positive isolates (37.9%) and Yeast like fungi (3.23%). *E. coli* (41.09%) was significantly isolated from EONS cases while *Klebsiella spp* (31.51%) was isolated almost dispassionately from both types. Among the 45.28% ESBL producing isolates, 58.33% (14) isolates of *E.coli* (09) and *Klebsiella species* (05) were recovered from EONS cases while 10 (41.67%) strains of *E.coli* (04) and *Klebsiella* species (06) were recuperated from LONS cases. The isolation of inducible AmpC was found to be 13.79%. Pure AmpC (both from EONS cases) as well as co-production of ESBL and AmpC (01 from LONS and 01from EONS cases) was seen in 01 each of *E.coli* and *Klebsiella* spp. Conclusion: The differentiation of ESBL from AmpC β-lactamases is necessary for formulation of treatment guidelines as the incidence is escalating.[Mishra P Natl J Integr Res Med, 2019; 10(2):29-34]

Key Words: AmpC, ESBL, *E.coli*, *Klebsiella*, Neonatal sepsis.

Author for correspondence: Dr. Dakshina Bisht, , Department of Microbiology, Santosh Medical College & Hospital, (Santosh Deemed to be University, NCR Delhi), Ghaziabad, NCR, U.P, India-20100.
E-mail: dakshinabisht@gmail.com, M: 9810510852

Introduction: Neonatal sepsis is a clinical condition which is characterized by systemic signs and symptoms due to invasion of blood by microbes in the neonatal life. Neonatal sepsis is the 3rd most common cause of death with an estimated 0.4 million of deaths in 2015, the majority of which are in developing countries [1].

Innate factors like feebly developed immune system, immature skin barrier, mucosal defense mechanisms and blood brain barrier predisposes the neonate to the increased susceptibility to infection. Neonatal sepsis is broadly categorized into two categories on the basis of timing of onset of the infection. First, Early onset neonatal sepsis (EONS) which is defined as infection occurring in either the first 48-72 hours of life or the first week of life. Late onset neonatal sepsis (LONS) is defined as sepsis occurring after 7 days. The modes of transmission, etiology, and treatment for EONS and LONS are different [2,3].

In developing countries *Escherichia coli, Klebsiella spp, Acinetobacter* accounted in causing EONS as compared to Group B *Streptococcus* and Coagulase negative *Staphylococci* (CoNS). *Klebsiella spp, Pseudomonas spp, Salmonella spp* and *Serratia* precede Coagulase Negative *Staphylococcus* (CoNS) and *Staphylococcus aureus* in causing LONS [5]. ESBLs are more prevalent in *Klebsiella* spp and *E.coli* than any other enterobacterial species and outbreaks of infection caused by ESBL producing *Klebsiella* spp have been widely reported [6]. There are several published reports on the detection of ESBLs among various clinical samples from different region of India but most of them have not differentiated the β-lactamases types especially in isolates from neonatal septicaemic cases. The precise detection of ESBL types helps in institution of antibiotic policies as well as in tracking trends and evolution of β-lactamases. Keeping in view the above facts, this study is undertaken to detect the incidence of ESBL producing *E. coli* and *Klebsiella spp* from different types of neonatal sepsis cases.

Material And Method: Sample Size & Study Design: This cross sectional study included 382 blood samples which were collected and processed in the Departments of Microbiology, Santosh Medical College Hospital, Ghaziabad in

S. No: 204

Title of the Collaborative activity: Comparison of Methods for Detection of Extended Spectrum Beta Lactamases Production by Escherichia coli and Klebsiella Isolates from Neonatal Sepsis Cases.

Name of the collaborator: 1. Ved Prakash-Professor & Head, Department of Microbiology, Rohilkhand Medical College & Hospital, Bareilly, U.P, India

Name of the participants: Mishra PP, Bisht D, Prakash V, Goel V

Year of collaboration: 2018-19

Nature of the activity: Research

S. No: 204

ISSN- O: 2458 - 868X, ISSN–P: 2458 – 8687
Index Copernicus Value: 49. 23
PubMed – National Library of Medicine - ID: 101731606

International Journal of Medical Science and Innovative Research (IJMSIR)
IJMSIR : A Medical Publication Hub
Available Online at: www.ijmsir.com
Volume – 4, Issue – 1, January - 2019, Page No. : 295 - 305

Comparison of Methods for Detection of Extended Spectrum Beta Lactamases Production by Escherichia coli and Klebsiella Isolates from Neonatal Sepsis Cases

[1]Prem P Mishra, [2]Dakshina Bisht, [3]Ved Prakash, [4]Varun Goel

[1] PhD Scholar, [2]Professor & Head, [4]Assistant Professor, [1,2,4] Department of Microbiology, Santosh Medical College& Hospital (Santosh Deemed to be University, NCR Delhi) Ghaziabad, U.P, India

[3] Professor & Head, Department of Microbiology, Rohilkhand Medical College & Hospital, Bareilly, U.P, India

Corresponding Author: Dakshina Bisht, Professor & Head, Department of Microbiology, Santosh Medical College& Hospital (Santosh Deemed to be University, NCR Delhi) Ghaziabad, U.P, India.

Type of Publication: Original Research Paper

Conflicts of Interest: Nil

Abstract

Background: ESBL production in critical conditions especially in neonatal sepsis is a burgeoning problem and their detection poses hindrance in establishing the prompt diagnosis.

Aim: This study was carried out to unearth the effective and easy standard method to identify ESBL production in *Escherichia coli* and *Klebsiella* species isolated from neonatal sepsis cases.

Methodology: 382 neonatal sepsis cases were subjected to blood culture and the isolates were identified and screened as per CLSI guidelines 2016 while the confirmation were done by combined disc diffusion test, Minimum inhibitory concentration test, Double Disc approximation test and E-test to check their efficacy.

Results: Blood culture positivity was found to be 32.46% (EONS- 47.38% &LONS- 52.42%) out of which 58.87% were Gram negative isolates, 37.9%were Gram positive isolates and 3.22% were *Candida spp*. *E.coli* and Group B *Streptococci* were more common in EONS while *Klebsiella spp*, CoNS and *Pseudomonas aeruginosa* were more common in LONS cases. Out of 54.72% presumptive ESBL producers, phenotypic confirmation by CDDT and MIC reduction test were done in 45.28% isolates (*E. coli;* 81.25%&*Klebsiella* species; 84.6%) while 68.75% & 69.23% for *E.coli* and *Klebsiella* species respectively were confirmed by E strip test. The DDAT were positive for 62.5% & 61.5% number of cases respectively. The sensitivity, specificity, PPV and NPV were found to be 100% each for MIC, for DDAT (70.83%, 100%, 100% and 42%) and for E test to be (83.33%, 100%, 100% and 55.56%).

Conclusion: Low specificity of screening test reflects detection of many false positive strains and low sensitivity of tests signals many missed identification. This study suggested the use of E test is better method to confirm screening positive ESBL isolates along with CDDT and MIC reduction test at microbiology laboratory.

Keywords: CDDT, *E.coli*, ESBL, *Klebsiella*, neonatal Sepsis

Introduction

Neonatal sepsis remains a major contributor to neonatal deaths in the developing as well as in developed countries [1]. Sepsis due to bacterial infection during the first 28 days

S. No: 205

Title of the Collaborative activity: Extended Spectrum β Lactamase Producing Lactose Fermenters Causing Neonatal Septicaemia in a Tertiary Care Center in Uttar Pradesh

Name of the collaborator: 1. Prem P Mishra-Lecturer, Department of Microbiology, LLRM Medical College, 2. Ved Prakash -Professor and Head, Department of Microbiology, Rohilkhand Medical College and Hospital

Name of the participants: Mishra P P, Bisht D, Sharma V P, Goel V.

Year of collaboration: 2018-19

Nature of the activity: Research

Extended Spectrum β Lactamase Producing Lactose Fermenters Causing Neonatal Septicaemia in a Tertiary Care Center in Uttar Pradesh

Prem P Mishra[1], Dakshina Bisht[2], Ved Prakash[3], Anil Kumar[4], Varun Goyal[5]

ABSTRACT

Introduction: Extended-spectrum Beta-lactamase (ESBL) producing enterobacteriaceae are of escalating concern in today's antibiotic era especially in neonatal sepsis. This study was conducted to determine the prevalence of ESBL producing *E.coli* and *Klebsiella species* in neonatal sepsis.

Material and Methods: This cross sectional study included 382 samples with signs and symptoms of neonatal sepsis. Blood cultures were done and the isolates were identified using standard biochemical tests and antibiotic susceptibility testing was performed by Kirby Bauer method. Beta-lactamase productions of the isolates were tested by combined disc diffusion test.

Results: Out of 382 samples, 124 (32.46%) samples [males were n=78/227 (34.36%) and 46/155 (29.67%) in females] were culture positive. The culture positivity among the Early Onset Neonatal Sepsis and Late Onset Neonatal Sepsis cases were 47.38% (n=59/124) and 52.42% (n=65/124).; The most common risk associated factors were premature birth, low birth weight, caesarian section etc among EONS and Low birth weight, premature birth, invasive procedures etc among LONS. Among the etiological agents, *Staphylococcus aureus* (n=24/47) (51.06%) and Coagulase negative *Staphylococci* (CoNS) (n=14/47) (29.79%) were most frequently isolated among Gram positive and *Escherichia coli (*n=30/73) (41.09%) followed by *Klebsiella species* (n=23/73) (31.51%) among the Gram negative isolates. ESBL production was seen in n=24/53 (45.28%) isolates [*Escherichia coli* n=13 (54.17%) and *Klebsiella* species n=11 (45.83%)]. Colistin and Imipenem are the most sensitive antibiotics for *Escherichia coli* and *Klebsiella species*.

Conclusion: High prevalence of ESBL producing *E.coli* and *Klebsiella* species was recorded among neonatal septicaemic cases. Testing of ESBL should be regularly done to formulate the empirical therapy based on region.

Keywords: ESBL, Escherichia, Klebsiella, Neonates, Sepsis

INTRODUCTION

Neonatal septicaemia is the most frequent cause for admission of neonates to hospitals and has been implicated in high incidence of morbidity and mortality, 30 – 50% of neonatal deaths.[1] Around one million deaths a year occur in the neonatal period (0–28 days) are due to infection, accounting for over 25% of neonatal deaths worldwide out of which 99% occur in developing countries like India.[2] The increased mortality is generally considered not to be owing to augmented severity of the disease in neonates presenting with infections, but rather due to higher failure rates of treatment.

In developing countries like India, the multiple drug resistant (MDR) organisms causing neonatal septicaemia are increasing and in particular Extended Spectrum β Lactamase producing Enterobacteriacae are of utmost concern. ESBL producers are resistant to *β*-lactam antibiotics including third-generation cephalosporins and often exhibit resistance to other classes of drugs such as aminoglycosides, cotrimoxazole, tetracycline and fluoroquinolones. AmpC β-lactamases are the cephalosporinases which are poorly inhibited by clavulanic acid. These are different from ESBLs by their capability to hydrolyze cephamycins. Thus, they pose a fearsome challenge for patient management with limited therapeutic options.

The common factors associated with these infections are low birth weight; prolonged hospitalization, invasive procedures, surgery and also colonization by bacteria from hospital environment, a significant proportion of these septicaemic babies are those, who were born unattended or ill attended in the hospital in unhygienic environment.

In developing countries *Escherichia coli, Klebsiella spp, Acinetobacter* are more accountable than Group B *streptococcus* and Coagulase negative *Staphylococci* (CoNS) in causing early onset neonatal septicaemia (EONS). *Klebsiella spp* and *Pseudomonas spp, Salmonella spp* precede Coagulase Negative *Staphlococcus (*CoNS) and *Staphylococcus aureus* in causation of Late Onset Neonatal Septicaemia (LONS). Numerous outbreaks of septicaemia by gram negative isolate especially the ESBL producers have been reported from different places out of which *Klebsiella* spp and *E.coli* are more prevalent than any other enterobacterial species.[3] Resistant bacteria are emerging worldwide as a threat to favorable outcome in the treatment of common infections in community and hospital settings.

[1]Lecturer, Department of Microbiology, LLRM Medical College, [2]Professor and Head, Department of Microbiology, Santosh Medical College, [3]Professor and Head, Department of Microbiology, Rohilkhand Medical College and Hospital, [4]Lecturer, Department of Microbiology, LLRM Medical College, [5]Assistant Professor, Department of Microbiology, Santosh Medical College, India

Corresponding author: Prem P Mishra, Lecturer, Department of Microbiology, LLRM Medical College, Meerut, India

How to cite this article: Prem P Mishra, Dakshina Bisht, Ved Prakash, Anil Kumar, Varun Goyal. Extended Spectrum β Lactamase Producing Lactose Fermenters Causing Neonatal Septicaemia in a Tertiary Care Center in Uttar Pradesh. International Journal of Contemporary Medical Research 2018;5(4):D9-D14.

DOI: 10.21276/ijcmr.2018.5.4.27

S. No: 206

Title of the Collaborative activity: Detection of metallo -b-lactamase producing Gram Negative Bacteria in clinical isolates in tertiary care hospital- prospective study

Name of the collaborator: 1. Shekhar Pal-Professor and HOD, Department of Microbiology, Doon Medical College, Dehradun, India

Name of the participants: Muneesh kumar sharma, Dakshina bisht, shekhar pal.

Year of collaboration: 2018-19

Nature of the activity: Research

Munesh Kumar Sharma, Dakshina Bisht, Shekhar Pal. Detection of Metallo-β-lactamase producing Gram Negative Bacteria in clinical isolates in Tertiary care Hospital - A prospective study. IAIM, 2019; 6(4): 107-111.

Original Research Article

Detection of Metallo-β-lactamase producing Gram Negative Bacteria in clinical isolates in Tertiary care Hospital - A prospective study

Munesh Kumar Sharma[1*], Dakshina Bisht[2], Shekhar Pal[3]

[1]Research Scholar, Department of Microbiology, Santosh Medical College, Ghaziabad, NCR Delhi, India
[2]Professor and HOD, Department of Microbiology, Santosh Medical College, Santosh Medical University, India
[3]Professor and HOD, Department of Microbiology, Doon Medical College, Dehradun, India
[*]Corresponding author email: **muneshmanipal@gmail.com**

International Archives of Integrated Medicine, Vol. 6, Issue 4, April, 2019.

Available online at http://iaimjournal.com/
ISSN: 2394-0026 (P) **ISSN: 2394-0034 (O)**
Received on: 24-03-2019 **Accepted on:** 31-03-2019
Source of support: Nil **Conflict of interest:** None declared.
How to cite this article: Munesh Kumar Sharma, Dakshina Bisht, Shekhar Pal. Detection of Metallo-β-lactamase producing Gram Negative Bacteria in clinical isolates in Tertiary care Hospital - A prospective study. IAIM, 2019; 6(4): 107-111.

Abstract

Background: Carbapenem resistance in Gram Negative Bacilli is an emerging threat in tertiary care centers which is mediated by Metallo-β-lactamase (MBL) enzyme. As per the National committee for Clinical Laboratory Standards (NCCLS), still does not have documented standard procedure from there several screening methods to detect their enzyme. Some subcontinents of India still awaiting to see prevalence and screening methods to detect enzyme which is responsible for Carbapenem Resistance.

Aim: The present study was undertaken to early detection of MBL by screening methods in Gram Negative Bacilli isolated from hospital and the prevalence MBL production in carbapenem resistant bacterial isolates.

Materials and methods: 176 consecutive different Gram Negative Bacilli (GNB) isolated from hospitalized patients which were tested antimicrobial susceptibility for different antibiotics including Carbapenem drugs as Imipenem by Kirby Bauer Disc Diffusion (CLSI 2010) and screening of Metallo-β-lactamase production by method as Imipenem- EDTA combined disc synergy test (I-CDST) and Imipenem-Double Disc Synergy Test (I-DDST) which determine the MBL by zone size enhancement with EDTA Impregnated Imipenem.

S. No: 207

Title of the Collaborative activity: Evaluation In Diagnostic test in Emerging Carbapenem Resistant Gram Negative Bacilli in patients admitted to Tertiary Care Center in north India

Name of the collaborator: 1. Shekhar Pal-Professor and HOD, Department of Microbiology, Doon Medical College, Dehradun, India

Name of the participants: Muneesh kumar sharma, Dakshina bisht, shekhar pal.

Year of collaboration: 2018-19

Nature of the activity: Research

S. No: 207

Int.J.Curr.Microbiol.App.Sci (2019) *8*(4): 2339-2346

International Journal of Current Microbiology and Applied Sciences
ISSN: 2319-7706 **Volume 8 Number 04 (2019)**
Journal homepage: http://www.ijcmas.com

Original Research Article https://doi.org/10.20546/ijcmas.2019.804.273

Evaluation of Diagnostic Test in Emerging Carbapenem Resistant Gram Negative Bacilli in Patients admitted to Tertiary Care Centre in North India

Munesh Kumar Sharma[1*], Dakshina Bisht[1] and Shekhar Pal[2]

[1]*Department of Microbiology, Santosh Medical College, Ghaziabad, NCR Delhi, India*
[2]*Department of Microbiology, Doon Medical College, Dehradun, India*

**Corresponding author*

Keywords

β-lactam antibiotics, Carbapenems, Metallo beta lacatamases, Double disc synergy test, Meropenem

Article Info

Accepted:
17 March 2019
Available Online:
10 April 2019

A B S T R A C T

Carbapenem antibiotics are very often used against multidrug resistant strains clinically troublesome pathogens which developed and proved that the resistance and metallo-β-lactamases (MBL) production were a disaster in treating infections. The identification and detection of MBL-producing bacterial strains were having crucial importance for the prevention of nosocomial infections. Therefore the present study was undertaken for screening MBL production Gram Negative bacteria. One hundred twenty two 122 consecutive Non-repetitive isolates of gram negative bacilli clinical isolates were subjected to susceptibility testing by disc-diffusion test on Mueller Hinton Agar. Meropenem resistant (MR) strains MBL production among MR stains were further screened by Meropenem- EDTA combined disc synergy test (M-CDST) and Meropenem-EDTA double-disc synergy test (M-DDST). A total of 31 isolates showed resistance to Meropenem which were screened and 29 (93.55%) isolates gave positive result by M-DDST whereas 27 (87%) were MBL producers by M-CDST. Escherichia coli isolates recorded highest as MR strains were identified. For the treatment, implementation of effective infection control and prevention of nosocomial dissemination used the procedure for detection and identification of carbapenem resistant by most reliable method for study of MBLs produced isolates. The more effective method was M-DDST in comparison of other method as M-CDST.

Introduction

The emergence of carbapenem resistant strains among gram negative bacteria is a notable threat. Clinically relevant bacterial species detected often resistant to different β-lactam antibiotics, including the antibiotics which cover extended spectrum cephalosporins, but rarely to carbapenems (Chu *et al.*, 2001). Among the B-lactams drugs, carbapenems were potent agents for treatment of serious infections by gram-negative bacteria. Their broad spectrum activity and resistance to hydrolysis by most B-lactamases, including the extended-spectrum B-lactamases (ESBL) (Bush *et al.*, 1995). Carbapenems antibiotics are the drug of choice for treatment of extended spectrum

S. No: 208

Title of the Collaborative activity: Prevalence of Enteric Bacterial Pathogens among HIV Infected Versus Non-HIV Infected Patients with Diarrhoea in Northern India.

Name of the collaborator: 1. P. Mathur-Clinical Microbiology, All India Institute of Medical Sciences, Delhi, India

Name of the participants: Varun Goel, Dinesh Kumar and Mathur, P.

Year of collaboration: 2018-19

Nature of the activity: Research

Int.J.Curr.Microbiol.App.Sci (2018) *7*(9): 2785-2792

International Journal of Current Microbiology and Applied Sciences
ISSN: 2319-7706 **Volume 7 Number 09 (2018)**
Journal homepage: http://www.ijcmas.com

Original Research Article https://doi.org/10.20546/ijcmas.2018.709.345

Prevalence of Enteric Bacterial Pathogens among HIV Infected Versus Non-HIV Infected Patients with Diarrhoea in Northern India

Varun Goel[1], Dinesh Kumar[2*] and P. Mathur[2]

[1]*Department of Microbiology, Santosh Medical College & Hospital, Ghaziabad, India*
[2]*Clinical Microbiology, All India Institute of Medical Sciences, Delhi, India*

**Corresponding author*

Keywords

Diarrhea, Human immunodeficiency virus, Intestinal infections, North-India, Opportunistic-enteropathogens

Article Info

Accepted:
18 August 2018
Available Online:
10 September 2018

A B S T R A C T

Enteric microbial agents in HIV differ in several ways between developing and developed world, the awareness of which can often guide appropriate prevention and patient treatment when limitation of resources prevent laboratory diagnosis of exact etiological agent. The primary objective of this study was to define and compare enteric bacterial pathogens in HIV-1 infected with diarrheal symptoms and non-HIV infected controls with diarrheal symptoms at a tertiary care hospital in northern India. This prospective study was conducted between January 2014 and December 2015 of a tertiary care academic health organization of North India. Stool samples from 300 HIV seropositive cases with diarrhea (study group) and 600 HIV negative diarrhea cases (control group) were examined. Samples were inoculated onto standard culture media. All the isolates were tested for antimicrobial susceptibility. Out of 300 HIV seropositive cases with diarrhea, 114 (38%) were positive for bacterial pathogens whereas in 600 HIV seronegative with diarrhea controls 120 (20%) were positive for bacterial pathogens. 41 isolates of Diarrheagenic *Escherichia coli*, 24 *Campylobacter jejuni*, 10 *Aeromonas hydrophilia*, 16 *Shigella* spp., 9 *Salmonella* spp., and 14 *Yersinia enterocolitica* were recovered from the HIV infected cases. Most of the bacteria were resistant to nalidixic acid. There is underline need for epidemiological investigations to screen microbial etiological agents in HIV infected subjects with diarrhoea along with their antibiogram periodically for reduction of morbidity and mortality in these patients.

Introduction

HIV is a major problem in India with a total number of people living with HIV (PLHIV) estimated at 21.17 lakhs in 2015 (National Institute of Medical Statistics and National AIDS Control Organization, 2015). Patients with HIV are prone to developing a variety of opportunistic infections during their lifetime. Superimposed infections due to impaired immunity are a major health problem among HIV seropositive patients. Diarrhea one of the hallmarks of HIV/AIDS, is a significant cause of morbidity and mortality in people living with HIV especially in developing countries (Krones and Hogenauer, 2012). Diarrheal episodes may be acute and brief, intermittent or recurrent, or, in some cases, chronic and severe. Diarrhea has been associated with 50% of HIV/AIDS patients in the developed world

S. No: 209

Title of the Collaborative activity: Relation of Anthropometric and Lifestyle Related Factors with Primary Dysmenorrhea

Name of the collaborator: 1. Maroosha Farooq - Senior resident, SKIMS medical college Srinagar, 2. Iram Jaan - Senior resident, SKIMS medical college Srinagar

Name of the participants: Maroosha Farooq, Iram Jaan, Varun Malhotra, Yogesh Tripathi, Shivani Gupta, Jagmohan Singh Dhakar

Year of collaboration: 2018-19

Nature of the activity: Research

S. No: 209

DOI Number: 10.5958/2320-608X.2019.00067.2

Relation of Anthropometric and Lifestyle Related Factors with Primary Dysmenorrhea

Maroosha Farooq[1], Iram Jaan[1], Varun Malhotra[2], Yogesh Tripathi[3], Shivani Gupta[4], Jagmohan Singh Dhakar[5]

[1]Senior resident, SKIMS medical college Srinagar, [2] Associate Professor, AIIMS, Bhopal, [3]Professor, Santosh Medical College, [4]Student, Santosh Medical College, [5] Statistician cum Assistant Professor, Department of Community Medicine, Santosh Medical College

Abstract

Menstrual cycle is a cycle of natural changes that occurs in the uterus and ovaries as an essential part of making sexual reproduction possible. The biological activity of the menstrual cycle is created by coordination among hypothalamic, hypophyseal and ovarian hormones. Many females suffer from dysmenorrhea, painful cramping sensation in the lower abdomen during menstruation. It is one of the most frequently encountered gynaecological disorders, often accompanied by other biologic symptoms, including fatigue, dizziness, sweating, headaches, back ache, nausea, vomiting, and diarrhoea, all occurring just before or during menses

Our aim was to assess the anthropometric measurements during the different phases of menstrual cycle in premenopausal girls and women. The present study was targeted at further unveiling the effect of menstrual cycle on weight changed during its different phases. Body mass index was calculated and the interconnection of the same with the prevalence and the severity of dysmenorrhea was sought.. The major findings of the present study are high prevalence of dysmenorrhea (68%) among healthy female volunteers. Among them 36% suffered from severe pain during their menstruation when they had to cut down on their activities and take medications to ameliorate their pain. There is **no** significant relation existed between dysmenorrhea and age at menarche, nature of diet, and BMI. On the other hand, weight changes were of equal significance in women afflicted and not afflicted with dysmenorrhea. Hence they are not related to occurrence of painful periods.

Key words: *Menstrual cycle Dysmenorrhea Anthropometry*

Introduction

One of the most important attributes of female body that makes it the seat of procreation is menstrual cycle. Menstrual cycle is a cycle of natural changes that occurs in the uterus and ovaries as an essential part of making sexual reproduction possible.[1,2] The first cycle usually begins between twelve and fifteen years of age, a point in time known as menarche.[3] The biological activity of the menstrual cycle is created by coordination among hypothalamic, hypophyseal and ovarian hormones.[4]

Corresponding email:
Varun Malhotra
E-mail: varun.physiology@aiimsbhopal.edu.in

Menstrual cycle has been divided into two major phases, one before ovulation known as follicular phase and one after ovulation known as luteal phase. . During follicular phase of each menstrual cycle, a cohort of follicles begins to grow in the ovary.[5] As the dominant follicle grows, there is a concomitant rise in estrogen levels.[5] In the same phase, increasing levels of estrogen are responsible for the growth of fresh uterine endometrium post menstruation.[5]As the estrogen levels peak, the resulting LH surge occurs 10-12 hrs before ovulation.[5]Once ovulation occurs, a cascade of changes transform the remnant follicle into corpus luteum.[6] Nine to eleven days after ovulation corpus luteum regresses rapidly, a process known as luteolysis.[5]This is followed by a massive dip in circulating levels of estradiol and progesterone, a phenomenon heralding

S. No: 210

Title of the Collaborative activity: Efficacy of Dual-Task Training with Two Different Priorities Instructional Sets on Gait Parameters in Patients with Chronic Stroke

Name of the collaborator: 1. Ahmad H Alghadir – Rehabilitation Research Chair, College of Applied Medical Sciences, King Saud University, Riyadh, Saudi Arabia

Name of the participants: Sengar, Shilpi; Raghav, Deepak; Verma, Meenakshi; Alghadir, Ahmad H.; Iqbal, Amir

Year of collaboration: 2018-19

Nature of the activity: Research

S. No: 210

Efficacy Of Dual-Task Training With Two Different Priorities Instructional Sets On Gait Parameters In Patients With Chronic Stroke

Shilpi Sengar [1], Deepak Raghav [1], Meenakshi Verma [1], Ahmad H Alghadir [2], Amir Iqbal [2]

Affiliations – collapse

Affiliations

1 Department of Physiotherapy, Santosh Medical College, Ghaziabad, Uttar Pradesh, India.
2 Rehabilitation Research Chair, College of Applied Medical Sciences, King Saud University, Riyadh, Saudi Arabia.

PMID: 31695387 PMCID: PMC6805250 DOI: 10.2147/NDT.S197632
Free PMC article

Abstract

Purpose: Balance is controlled through a complex process involving sensory, visual, vestibular and cerebral functioning which get affected by various neurological disorders such as in stroke. Various types of exercises are designed to address the imbalance that is developed due to these neurological disorders. This study aimed to compare the efficacy of dual-task training using two different priority instructional sets in improving gait parameters in patients with chronic stroke.

Methods: This study was a randomized, pretest-posttest experimental group design that compared between two different priority instructional sets (fixed versus variable) of the dual-task training. A convenience sample of thirty patients with chronic stroke due to ruptured middle cerebral artery (mean age±SD = 55.76±5.23; range 48-65 years) was recruited and equally allocated into two groups. Group 1 received dual-task training with fixed priority instructional sets and group 2 received dual-task training with variable priority instructional sets. Both groups were trained for a period of 45 mins each session, 3-sessions per week for 4 weeks. The timed 10-m walk test and foot prints on walkway paper were used to assess the gait parameters (walking speed, stride length and step length) before and after the training session.

Results: Within-group analysis revealed a significant improvement ($p<0.05$) on gait parameters for both the groups. Furthermore, Cohen's *d* calculation for the treatment effect size revealed highly larger effect size on gait parameters in group 2 (Cohen's $d>2$ SD) than group 1 (Cohen's $d<2$ SD) for the all variables.

S. No: 211

Title of the Collaborative activity: Microanatomy Of The Nerve To Iliacus Muscle And Its Clinical Significance, Microanatomía Del Nervio Del Músculo Ilíaco Y Su Importancia Clínica

Name of the collaborator: 1. Rajani Singh - Department of anatomy, All India Institute of Medical Sciences Rishikesh Dehradun India, 2. Rajkumar - Department of Pediatric neurosurgery SGPGI Lucknow India.

Name of the participants: Singh R., Rajkumar, Chandra N., Gupta K., Ansari M.S.

Year of collaboration: 2018-19

Nature of the activity: Research

Int. J. Morphol.,
37(3):1150-1163, 2019.

Microanatomy of the Nerve to Iliacus Muscle and its Clinical Significance

Microanatomía del Nervio del Músculo Ilíaco y su Importancia Clínica

Rajani Singh[1]; Rajkumar[2]; Naresh Chandra[3]; Kavita Gupta[4] & M. S. Ansari[1]

SINGH, R.; RAJKUMAR; CHANDRA, N.; GUPTA, K. & ANSARI, M. S. Microanatomy of the nerve to iliacus muscle and its clinical significance. *Int. J Morphol., 37(3)*:1150-1163, 2019.

SUMMARY: The iliacus muscle, arising from iliac fossa is innervated chiefly by nerves to iliacus and femoral nerve. The tendon of iliacus muscle in the caudal part fuses with the tendon of psoas major muscle to form iliopsoas tendon As the iliacus/iliopsoas is responsible for flexing of the thigh and the forward tilting of the pelvis, body posture, Olympic lifts, daily activities like walking and running, so impairment of above functions, due to spinal cord injury or injury to nerves to iliacus, remained a grey area to explore manifestation of nerve lesions at fascicular level. Therefore an experimental study was designed to map the complex fascicular pathways suffering from splits, fusions and multiplexing coupled with measurement of distances of closely sampled histological slides. Tracking, correlation and interpretation of fascicles, in these slides of a cropped femoral nerve in iliacus region from a 70 year old female cadaver were analyzed. The study resulted in three schematic models of fascicular pathways in 3 nerves to iliacus and 2 tabular models of 2 remaining nerves to iliacus revealing complete picture of fascicles interrupted by dynamic transformational processes. These results would facilitate MRI neurographic interpretation at fascicular level and neurosurgical treatment through identification. The fascicular identification and setup would also discover anatomical complications and location of injury. Besides the huge data volume evolved off this experiment, the study would not only open up grey area for neuroanatomical research but also would revolutionize the neurosurgical repair and grafting of nerves to iliacus at fascicular level.

KEY WORDS: Fascicular pathways; Nerve lesion; Fascicle lesion; Iliacus muscle; Fascicular identification; Transformational processes.

INTRODUCTION

The flat and triangular iliacus muscle, an exact fit of the iliac fossa is located in the lower portion of the trunk. The tendon of iliacus muscle in the caudal part fuses with the tendon of psoas major muscle to form iliopsoas tendon. A two-third portion of this muscle is attached to the iliac fossa from its top. Another portion is attached to the inner portion of the iliac crest, the top, outer portion of the pelvic bone. Other fibers of this muscle are attached to the iliolumbar and anterior sacroiliac ligaments and up to the anterior iliac spines. These muscle fibers then converge and insert on the tendon at the lateral side of the psoas major muscle (Standring, 2008).

The iliacus is part of the hip rotator muscles which are responsible for the flexing of the thigh and the forward tilting of the pelvis. It is also one of the key muscles that help to maintain proper body posture. The iliopsoas contributes heavily to Olympic lifts and every day activities like walking and running. It also influences our form in many other types of movement, depending on how weak or how tight this group of muscles is. At the coxal joint, it flexes, laterally rotates, and adducts the hip.

The iliacus and iliopsoas muscles are innervated chiefly by branches of femoral nerve namely nerves to iliacus. These nerves to iliacus are made of motor and sensory fascicles/nerve fibers which communicate and control the activity or functions of iliacus and iliopsoas muscles. As these fascicles constituting nerves to iliacus are extending from iliacus and iliopsoas muscles to various control points in the brain through femoral nerve and spinal cord so in case of impairment of functions as illustrated above due to

[1] Department of anatomy, All India Institute of Medical Sciences Rishikesh Dehradun India.
[2] Department of Pediatric neurosurgery SGPGI Lucknow India.
[3] Department of Anatomy Hind Institute of Medical Sciences Lucknow India.
[4] Department of Physiology Santosh Medical College Ghaziabad India.

S. No: 212

Title of the Collaborative activity: Physiological basis and Mechanism of Headache: Mini Review.

Name of the collaborator: 1. Renu Bhatia - Associate Professor, Department of Physiology, All India Institute of Medical Sciences, New Delhi, India

Name of the participants: Dr Abhishek Sinha ,Dr Renu Bhatia

Year of collaboration: 2018-19

Nature of the activity: Research

S. No: 212

www.jmscr.igmpublication.org
Index Copernicus Value: 79.54
ISSN (e)-2347-176x ISSN (p) 2455-0450
crossrefDOI: https://dx.doi.org/10.18535/jmscr/v7i3.75

IGM Publication
Journal Of Medical Science And Clinical Research
An Official Publication Of IGM Publication

Physiological basis and Mechanism of Headache: Mini Review

Authors
Abhishek Sinha[1*], Renu Bhatia[2]
[1]Assistant Professor, Department of Physiology, Santosh Medical College, Ghaziabad, India
[2]Associate Professor, Department of Physiology, All India Institute of Medical Sciences, New Delhi, India
*Corresponding Author
Abhishek Sinha
Email: *abhsheksinha@gmail.com*

Abstract
Headache is one of the most common medical complaints of the general population. It could be a major symptom of a serious problem like subarachnoid haemorrhage or psychological factors like day to day tension. The knowledge of physiological basis and mechanism of various types of headaches like Migraine, Cluster headache and Tension type headache has been discussed in this article with recent insights and current understanding with new and old evidences. The present article is an attempt to broadly cover this aspect.

Keywords: *Headache, Migraine,Tension type headache, Cluster headache, Physiological basis, Patho-physiological mechanism.*

Introduction

Headache is one of the most common medical complaint of general population. It is an excellent example of a problem that spans the breadth of medicine. It could be one of the major symptoms off a serious problem like subarachnoid haemorrhage or could simply be due to psychological factors such as day to day tension, without any organic disorder. The general knowledge of pain and nociception has improved dramatically in the recent decades however the understanding of physiological basis and underlying mechanism of headache has become essential in order to discover new treatment modalities which are aimed at relieving headaches.

The pain sensing receptors or nociceptors are present in various structures. The most important structures which register pain are the blood vessels, primarily the proximal part of cerebral and dural arteries along with them large veins and venous sinuses also have nociceptors[(1)].Cranial bone is insensitive but pain is experienced when periosteum is stretched[(1)]. Direct stimulation of cerebral cortex, ependymal lining of ventricles and choroids does not cause pain.[(1)]

As far as peripheral innervation is concerned, pain from upper surface of tentorium of anterior and middle cranial fossa is transmitted by trigeminal nerve[(1)].From the extra cranial arteries like supra-orbital, frontal and superficial temporal, pain is transmitted by trigeminal nerve whereas the pain sensations from posterior auricular and occipital arteries is mediated by upper cervical roots[(1)]. Other extra cranial structures like upper cervical, spine,

S. No: 213

Title of the Collaborative activity: Effect of Pranayam and OM Meditation om visual reaction time, hand grip dynamometer endurance and stress in medical students.

Name of the collaborator: 1. Dr Kavita Singh - Tutor, GIMS, Greater Noida, 2. Dr Vivek Sharma - Professor, Dept. of Physiology, Government Institute of Medical Sciences, Greater Noida

Name of the participants: Kavita Singh, Rinku Garg, Yogesh Tripathi, Navpreet Mann, Vivek Sharma

Year of collaboration: 2018-19

Nature of the activity: Research

S. No: 213

http://jmscr.igmpublication.org/home/
ISSN (e)-2347-176x ISSN (p) 2455-0450
crossref DOI: https://dx.doi.org/10.18535/jmscr/v7i7.140

IGM Publication
Journal Of Medical Science And Clinical Research
An Official Publication Of IGM Publication

Effect of Pranayama and "OM" meditation on visual reaction time, hand grip dynamometer endurance and stress in medical students

Authors
Dr Kavita Singh[1]*, Dr Rinku Garg[2], Dr Y. Tripathi[3], Dr Navpreet Mann[4]
Dr Vivek Sharma[5]
[1]Tutor, GIMS, Greater Noida
[2]Professor, Dept. of Physiology, Santosh Medical College, Ghaziabad
[3]Professor, Dept. of Physiology, Santosh Medical College, Ghaziabad
[4]Assistant Professor, Dept of Physiology, Santosh Medical College, Ghaziabad
[5]Professor, Dept. of Physiology, Government Institute of Medical Sciences, Greater Noida
Corresponding Author
Dr Kavita Singh
Tutor, GIMS, Greater Noida, India

Abstract
Yoga is a lifestyle which when practised gives a sense of well- being, positive attitude, calmness and serenity to mind. The benefits of Yoga can be studied by different parameters. In this study Visual reaction time, hand grip dynamomter endurance time and stress levels were measured to study the efficacy of yoga. The aim of this study was to study the benefits of yoga on medical students as they are under constant pressure to perform well. And Yoga can prove to be an inexpensive, valuable source of attaining a healthy mind and body. Yoga in the form of pranayama and meditation was performed for 15 days daily by thirty medical students of Santosh Medical College, Ghaziabad. The visual reaction time was measured by a online reaction test. HGDE was measured with the help of Hand grip dynamometer. Stress levels were assessed by STAI-A Form Y-1. The readings were taken before yoga and after yoga. Statistical analysis was done using paired t- test. We observed that VRT and stress score reduced significantly and endurance time increased significantly after performing yoga. (p value <0.001).

Introduction

Yoga is set of principles which when practised promotes health and well -being through the integration of body, breath, and mind[1]. It is self-empowering and helps in healing process.[2] The healing comes from within and when an individual is in positive state of mind healing is quick as compared to the negative state of mind[2]. The voluntary rhythmic regulation of breathing to calm the mind is called Pranayama.[3] According to yoga, pranayama consists of various ways of inhaling, exhaling and retention of 'prana' or breath. Pranayama have been demonstrated to produce various physiological benefits.[4,5] Regular practice of breathing exercises (pranayama) increases parasympathetic tone, decreases sympathetic activity, improves cardio–vascular and respiratory functions, decreases the effect of stress and strain on the body and improves physical and mental health.[6] Meditation is a conscious mental process that brings physiological changes in the form of

S. No: 214

Title of the Collaborative activity: Body fat distribution, cardiorespiratory fitness, and lipid profile in first degree relatives with type 2 diabetes mellitus

Name of the collaborator: 1. Anil Kumar Sharma - Department of General Medicine, F H Medical College, Tundla, Uttar Pradesh, India

Name of the participants: Shaik Azmatulla, Rinku Garg, Anil Kumar Sharma & Navpret Mann

Year of collaboration: 2018-19

Nature of the activity: Research

ORIGINAL ARTICLE

INTERNATIONAL JOURNAL OF RESEARCH IN PHARMACEUTICAL SCIENCES

Published by JK Welfare & Pharmascope Foundation Journal Home Page: https://ijrps.com

Body fat distribution, cardiorespiratory fitness, and lipid profile in first degree relatives with type 2 diabetes mellitus

Shaik Azmatulla*[1], Rinku Garg[2], Anil Kumar Sharma[3], Navpret Mann[2]

[1]Research Scholar, Department of Physiology, Santosh Medical College, Santosh Deemed to be University, Ghaziabad, Delhi NCR, Uttar Pradesh, India
[2]Department of Physiology, Santosh Medical College, Santosh Deemed to be University, Ghaziabad, Delhi NCR, Uttar Pradesh, India
[3]Department of General Medicine, F H Medical College, Tundla, Uttar Pradesh, India

Article History:

Received on: 15.05.2019
Revised on: 20.08.2019
Accepted on: 26.08.2019

Keywords:

Body fat, cardiorespiratory fitness, high-density lipoproteins, visceral fat

ABSTRACT

Evaluation of people at increased risk like first degree relatives of type 2 diabetes mellitus (FDRDM) may be useful to reduce the risk of disease progression, development, early intervention, and to take precautionary measures. By considering the multifactorial pathophysiological changes of D.M., we have examined the body fat distribution, cardiorespiratory fitness, and lipid profile of FDRDM. Similar age, height, waist-hip ratio (WHR) in both groups, significantly higher body mass index (BMI) in FDRDM, was observed in our study. Percentage body fat and blood glucose levels in fasting were elevated considerably, and 12 min walk distance was low in FDRDM. Visceral fat was slightly high, but it was not statistically significant. In FDRDM, High-density lipoproteins (HDL) were less but not statistically significant. Significantly higher levels of Total cholesterol (T.C.), triglycerides (TGL), low-density lipoproteins (LDL), and very-low-density lipoproteins (VLDL) were seen high in FDRDM when compared to controls. Higher body fat percentage reduced cardiorespiratory function and abnormal lipid profile in FDRDM may lead to the development of severe cardiovascular events and necessitates lifestyle modification at early phases of disease development

*Corresponding Author

Name: Shaik Azmatulla
Phone: 9670772421
Email: azmatshaik.786@gmail.com

ISSN: 0975-7538

DOI: https://doi.org/10.26452/ijrps.v10i4.1637

Production and Hosted by

IJRPS | https://ijrps.com

INTRODUCTION

With 61.3 million diabetes (D.M.) population, India became a global hub for type 2 diabetes (Tabák *et al.*, 2012). The prevalence of diabetes and prediabetes is increasing worldwide. Experts projected that by 2030, the numbers might reach 470 million (Anjana *et al.*, 2011). In 2011, the Indian Medical Association estimated that 62.4 million people are living with diabetes in India (Paul *et al.*, 2012). The manifestations of diabetes in Indians are faster than western people (Ramachandran *et al.*, 1988).

Indians are more susceptible to D.M. because of the role of genetics and improper habits. Currently, the presence of D.M. became very prevalent in youngsters, especially in India. The primary reason could be due to the hereditary effect e of D.M. In addition to that, offsprings/first-degree relatives D.M. tend to have similar lifestyle, social, economic, and cultural habits, which could increase the risk of development of D.M. along with the role of genetics.

Complications of D.M. in young people affect the

S. No: 215

Title of the Collaborative activity: Inflammation and oxidative stress in first degree relatives of type 2 diabetics.

Name of the collaborator: 1. Anil Kumar Sharma - Department of General Medicine, F H Medical College, Tundla, Uttar Pradesh, India

Name of the participants: Shaik Azmatulla, RinkuGarg, Anil Kumar Sharma & Navpret Mann

Year of collaboration: 2018-19

Nature of the activity: Research

ORIGINAL ARTICLE

INTERNATIONAL JOURNAL OF RESEARCH IN PHARMACEUTICAL SCIENCES

Published by JK Welfare & Pharmascope Foundation Journal Home Page: https://ijrps.com

Inflammation and oxidative stress in first degree relatives of type 2 diabetics

ShaikAzmatulla*[1], RinkuGarg[2], Anil Kumar Sharma[3], Navpret Mann[2]

[1]Research Scholar, Department of Physiology, Santosh Medical College, Santosh Deemed to be University, Ghaziabad, Delhi NCR, Uttar Pradesh, India
[2]Department of Physiology, Santosh Medical College, Santosh Deemed to be University, Ghaziabad, Delhi NCR, Uttar Pradesh, India
[3]Department of General Medicine, F H Medical College, Tundla, Uttar Pradesh, India

Article History:

Received on: 14.06.2019
Revised on: 13.09.2019
Accepted on: 17.09.2019

Keywords:

High Sensitive C reactive protein,
Total antioxidant status,
Malondialdehyde,
Interleukin 6

ABSTRACT

Indians are more susceptible to diabetes mellitus (DM) because of genetic reasons & improper life-style habits. Currently, the occurrence of DM has been prevalent in youngsters especially in India, in our present study, we attempted to explore the role of oxidative stress, inflammation in first degree relatives of type 2 diabetes mellitus (FDRDM). Inflammation was assessed by using high sensitive C reactive protein (hsCRP), Interleukin 6 (IL6), Tumor necrosis factor-alpha (TNF alpha), and oxidative stress by using malondialdehyde and total antioxidant status. FDRDM and control groups had similar for age, height, and waist-hip ratio (WHR). Weight and body mass index (BMI) was significantly high in FDRDM. Total antioxidant levels (TAOS) were less, and malondialdehyde (MDA) was significantly more in the FDRDM group. Inflammatory markers were significantly high in FDRDM. We conclude that increased oxidative stress and inflammation may lead to more derangements in glucose homeostasis in first degree relatives of type 2 diabetes (T2DM), it could increase the chances of development of cardiac events and necessitates early lifestyle modifications.

*Corresponding Author

Name: ShaikAzmatulla
Phone:
Email: azmatshaik.786@gmail.com

ISSN: 0975-7538

DOI: https://doi.org/10.26452/ijrps.v10i4.1638

Production and Hosted by

IJRPS | https://ijrps.com

INTRODUCTION

The incidence of diabetes and prediabetes is increasing worldwide. Experts projected that by 2030, the numbers might reach 470 million (Anjana *et al.*, 2011). In 2011, the Indian Medical Association estimated that 62.4 million people are living with diabetes in India (Paul *et al.*, 2012). The manifestations of diabetes in Indians are faster than western people (Ramachandran *et al.*, 1988). Indians are more susceptible to DM because of genetic reasons and improper life-style. Currently, the prevalence of DM is very high among youngsters, especially in India, due to the innate nature of DM. In addition to that, FDRDM tends to have a similar cultural, social, and economic background that is reported to increase the risk of development of T2DM in those who already had genetic exposure.

A genetic component has a crucial role in T2DM. The risk of development of T2DM in children with no parents with DM and DM parents was 14% and 29.2 %, respectively (Weijnen *et al.*, 2002). The fundamental trait and primary pathogenesis is insulin resistance (Reaven, 1988). Subsequently, FDRDM shows insulin resistance even before the development of DM. Non-diabetic FDRDM has a higher incidence of obesity, insulin resistance (IR),

S. No: 216

Title of the Collaborative activity: Shaik Azmatulla, RinkuGarg, Anil Kumar Sharma & Navpret Mann

Name of the collaborator: 1. Kavita Singh - Assistant Professor, Physiology, SGRRIHMS, Dehradun, Uttarakhand, 2. Prashant Jain - Assistant Professor, Physiology, SGRRIHMS, Dehradun, Uttarakhand

Name of the participants: Kavita Singh, Rinku Garg*, Shaktibala Dutta, Prashant Jain

Year of collaboration: 2018-19

Nature of the activity: Research

S. No: 216

To Study the Prevalence of Internet Addiction in Students of Medical Colleges of Northern India

Kavita Singh[1] Rinku Garg[2]* Shaktibala Dutta[3] Prashant Jain[4]

[1] Assistant Professor, Physiology, SGRRIHMS, Dehradun, Uttarakhand

[2] Professor & HOD, Physiology, Santosh Medical College, Santosh Deemed to be University, Ghaziabad, India

[3] Professor & HOD, Pharmacology, Santosh Medical College, Santosh Deemed to be University, Ghaziabad, India

[4] Assistant Professor, Physiology, SGRRIHMS, Dehradun, Uttarakhand

***Abstract** – Internet is a growing pandemic in today's digitally dependent lifestyle. The most affected are students of all age groups.[2] Students use them for various reasons like searching study materials, watching videos[7], connecting socially. This dependence affects the mental wellbeing of the students[9,10]. The present Covid era has also increased this internet dependence amongst the younger generation.*

***Material & Methods** – 307 medical students were enrolled for this study. Informed consent was obtained & ethical clearance was also taken. Young's Internet Addiction questionnaire was created in Google form & mailed to the students. Responses was analysed on excel sheet & Student t-test was applied.*

***Result** – 32 % were mild users, 19% moderate internet users & 3.9% students were severely addicted to internet. 44% students were normal users of internet. Statistical significance was found between gender and internet addiction score. (P value < 0.05). However, no significance was found in severe addiction among male & female students.*

***Conclusion** – Internet addiction is a growing problem among the students which cannot be completely abolished. But we can surely guide them regarding limited usage, other remedial measures so that they are not addicted to internet.*

***Key Words** – Internet Addiction, Medical Students*

----------X----------

INTRODUCTION

All aspects of the society are progressively having more impact of internet and has become an essential part of the daily lives of people[1] and this impact is more in younger generation.[2]

The term "internet addiction" (IA) also known as internet addiction disorder since it is now recognized as a psychiatric disorder[3] & is also a concerning

The students search study materials, videos of related academic topics on internet & recent advances in medical fields. Due to the expanding use of telemedicine and evidenced based medicine, use of internet by medical students has increased[7,8] It has been suggested that unwarranted internet use could represent addictive behaviour with mental health implications.[9,10,11]

Many studies have suggested that, similar to other

S. No: 217

Title of the Collaborative activity: Occupational Tuberculosis In Sewage Workers: A Neglected Domain

Name of the collaborator: 1. Mina Chandra-Department of Psychiatry, PGIMER and Dr RML Hospital, New Delhi, India.

Name of the participants: Arora V.K., Chandra K., Chandra M.

Year of collaboration: 2018-19

Nature of the activity: Research

S. No: 217

Occupational tuberculosis in sewage workers: A neglected domain

V K Arora [1], Kalpana Chandra [2], Mina Chandra [3]

Affiliations – collapse

Affiliations

1 Santosh University, Ghaziabad, Uttar Pradesh, India.
2 Santosh University, Ghaziabad, Uttar Pradesh, India. Electronic address: drkalpanachandra@gmail.com.
3 Department of Psychiatry, PGIMER and Dr RML Hospital, New Delhi, India.

PMID: 30797278 DOI: 10.1016/j.ijtb.2018.09.001

No abstract available

Similar articles

Tuberculosis and other chronic morbidity profile of sewage workers of Delhi.
Chandra K, Arora VK.
Indian J Tuberc. 2019 Jan;66(1):144-149. doi: 10.1016/j.ijtb.2018.09.003. Epub 2018 Oct 9.
PMID: 30797273

[Demonstration of gram-negative bacteria and endotoxins in the air surrounding a sewage treatment plant: effect of contaminated aerosols on the health status of the staff].
Schira JC, Snella MC, Chapon JL.
Schweiz Med Wochenschr. 1987 Mar 7;117(10):354-8.
PMID: 3563442 French.

[Evaluation of occupational exposure to biological agents, endotoxins and PNOC in a sewage treatment plant].
Gioffrè A, Zakrzewska AM, Marramao A, Capone PP, Iannò A, Ammoscato I, Spagnoli G.
Ann Ig. 2007 Jul-Aug;19(4):337-44.
PMID: 17937326 Italian.

Tuberculosis risk in health care workers.
Jesudas CD, Thangakunam B.
Indian J Chest Dis Allied Sci. 2013 Jul-Sep;55(3):149-54.
PMID: 24380222 Review.

S. No: 218

Title of the Collaborative activity: Tuberculosis - Depression Syndemic: A Public Health Challenge

Name of the collaborator: 1. Mina Chandra-Centre of Excellence in Mental Health, PGIMER and Dr Ram Manohar Lohia Hospital, New Delhi, India

Name of the participants: Chandra M., Rana P., Chandra K., Arora V.K.

Year of collaboration: 2018-19

Nature of the activity: Research

S. No: 218

Tuberculosis – Depression syndemic: A public health challenge

Mina Chandra [1], Proteesh Rana [2], Kalpana Chandra [3], Vijay Kumar Arora [4]

Affiliations – collapse

Affiliations

1 Centre of Excellence in Mental Health, PGIMER and Dr Ram Manohar Lohia Hospital, New Delhi, India. Electronic address: minasaxena@gmail.com.
2 Department of Pharmacology, PGIMER and Dr Ram Manohar Lohia Hospital, New Delhi, India. Electronic address: proteesh@gmail.com.
3 Department of TB and Chest Diseases, Santosh University, Ghaziabad, UP, India. Electronic address: drkalpanachandra@gmail.com.
4 Santosh University, Ghaziabad, UP, India; National Institute of Tuberculosis and Respiratory Diseases, Delhi, India; JIPMER, Pondicherry, India. Electronic address: vijaykumar1945@gmail.com.

PMID: 30878069 DOI: 10.1016/j.ijtb.2019.02.007

Abstract

Introduction: Depression is common in Tuberculosis (TB) and associated with adverse outcomes through pathogenic mechanisms and impaired self-care behaviours including reduced treatment adherence. Undiagnosed depression can threaten the robustness of DOTS model despite large public health investment. The Depression-Tuberculosis Syndemic requires collaborative partnership with mental health professionals.

Aim: To study the evidence base for Depression-Tuberculosis Syndemic.

Methodology: A Pubmed and Google Scholar search was conducted using the key words "Depression", "Tuberculosis" and "Syndemic" and abstracts screened for appropriateness and relevance.

Result: Depression-TB Syndemic is common with a bidirectional relationship. Depression is associated with higher hazard ratio and increased prevalence of TB. Depression is independently associated with higher morbidity, mortality, drug resistance, risk of TB reactivation and community TB transmission. The underlying biopsychosocial mechanism of Depression- Tuberculosis Syndemic includes biological factors like inflammatory cascade, HPA axis dysregulation and psychosocial factors like perceived stigma and treatment non-adherence.

S. No: 219

Title of the Collaborative activity: Tuberculosis and Other Chronic Morbidity Profile of Sewage Workers of Delhi

Name of the collaborator: 1. Vijay Kumar Arora-Formerly Vice Chancellor, Professor and Head of Department of TB and Chest Diseases, Santosh University, Ghaziabad, Delhi NCR, India

Name of the participants: Chandra K., Arora V.K.

Year of collaboration: 2018-19

Nature of the activity: Research

S. No: 219

Tuberculosis and other chronic morbidity profile of sewage workers of Delhi

Kalpana Chandra [1], Vijay Kumar Arora [2]

Affiliations – collapse

Affiliations

1 Santosh University, Ghaziabad, Delhi NCR, India. Electronic address: drkalpanachandra@gmail.com.

2 Formerly Vice Chancellor, Professor and Head Od Department of TB and Chest Diseases, Santosh University, Ghaziabad, Delhi NCR, India. Electronic address: vijaykumar1945@gmail.com.

PMID: 30797273 DOI: 10.1016/j.ijtb.2018.09.003

Abstract

Background: Sewage management is hazardous due to chronic exposure to chemical gases, bioaerosols and micro-organisms through inhalation; accidental oral intake and penetration through skin or mucous membranes through injuries or breech in personal protective equipment. While there has been some research on isolated infections and multisystem symptom profiling of sewage workers, there is little research on the burden of chronic illnesses like Tuberculosis and Non Communicable Diseases (NCDs).

Methods: A cross sectional observational study was conducted on chronic comorbidity profile of sewage workers with more than five years of occupational experience and employed in three contiguous districts of NCT of Delhi.

Results: The study sample consisted of 104 sewage workers with mean age of 50.71 (±8.43) years, an average of 7.35 (±3.75) years of formal education and an average occupational exposure to sewage work of 21.28 (±10.54) years. 21.15% sewage workers had Tuberculosis and 92.31% had at least one of the chronic respiratory diseases (COPD, Asthma or ACOS). 85.6% of participants were smokers. The most common NCD was Hypertension (67.3%) followed by Dyslipidaemia (50%) and Diabetes Mellitus (43.3%). There was clustering of NCDs with 53.85% subjects having three or more chronic disorders. Less than 5% of study participants were free from all the investigated chronic diseases.

Conclusion: The sewage workers have an adverse chronic morbidity profile for both Tuberculosis and NCDs. There is an urgent need for epidemiological research and targeted screening and public health intervention for Tuberculosis and other NCDs in sewage workers as an occupational group.

S. No: 220

Title of the Collaborative activity: A Comparative Study to Assess the Efficacy of Permethrin (Topical) And Benzyl Benzoate (Topical) For The Treatment Of Scabies Patients

Name of the collaborator: 1. Praveen Agarwal Department of Pharmacology, FH Medical College, Tundla, Uttar Pradesh, India

Name of the participants: Chitti Babu G., Bagati K.D., Agarwal P., Sharma J.

Year of collaboration: 2018-19

Nature of the activity: Research

ORIGINAL ARTICLE

INTERNATIONAL JOURNAL OF RESEARCH IN PHARMACEUTICAL SCIENCES

Published by JK Welfare & Pharmascope Foundation Journal Home Page: https://ijrps.com

A comparative study to assess the efficacy of permethrin (topical) and benzyl benzoate (topical) for the treatment of scabies patients

Chitti Babu G[1], Kavita Dhar Bagati[*2], Praveen Agarwal[3], Jyostna Sharma[2]

[1]Department of Pharmacology, Santosh University, Ghaziabad, NCR-Delhi, India
[2]Department of Pharmacology, Santhosh Medical College, Ghaziabad, NCR-Delhi, India
[3]Department of Pharmacology, FH Medical College, Tundla, Uttar Pradesh, India

Article History:

Received on: 03.07.2019
Revised on: 17.10.2019
Accepted on: 30.10.2019

Keywords:

Comparative study,
efficacy,
scabies,
benzyl benzoate,
permethrin

ABSTRACT

Several attempts have been made to come up with the anti-scabies drugs that are more efficient and safer. In India, scabies is more prevalent in over-crowded communities with low socioeconomic conditions, due to which the best efficient anti scabies drugs or treatment are unaffordable to them. To comparatively assess the efficacy of permethrin (topical) and benzyl benzoate (topical) in scabies patients. Study subjects with a confirmed diagnosis of scabies were included in this study. After enrolling 178 study subjects, they were equally distributed to two study groups (A & B) using a computer-generated random allocation number and were given the desired respective therapeutic interventions. Subjects in Group A were given permethrin 5% cream. The Benzyl Benzoate 10% to 25% emulsion was allocated for Group B subjects. Efficacy of two groups of drugs was compared in terms of improvement in clinical grading of disease (%) & improvement in clinical grading of pruritus (%) during follow up visits at the end of 1, 2, 4 & 6 weeks. The mean age ($\pm$ SD) for study subjects in the Group A was 18.18 $\pm$ 11.33 years, whereas, in Group B, it was 28.86 $\pm$ 12.39 years. The clinical cure rate of Permethrin and Benzyl benzoate was 72% and 34% at the end of the first week. It was 98% and 60% at the end of the second week. Data shows that permethrin is more efficacious than Benzyl benzoate. Comparatively, during consecutive visits, permethrin provided better and fast improvement in pruritis grade than benzyl benzoate. In the treatment of scabies permethrin (topical) was found to be more efficacious in comparison to benzyl benzoate (topical). The clinical cure rate of Permethrin and Benzyl benzoate was 72% and 34% at the end of the first week. Permethrin provided better and fast improvement in pruritis grade than benzyl benzoate.

*Corresponding Author

Name: Kavita Dhar Bagati
Phone:
Email: dhar.kavita12@gmail.com

ISSN: 0975-7538

DOI: https://doi.org/10.26452/ijrps.v10i4.1755

Production and Hosted by

IJRPS | https://ijrps.com

INTRODUCTION

"Scabies" is a parasitic infection which is very frequently observed and is caused by an obligate human parasitic mite, i.e., "Sarcoptes scabiei var. hominis" (Currie, 2015). The annual incidence of scabies remains high i.e., three million in the developing countries (Jackson *et al.*, 2007). Several attempts have been made to come up with the anti-scabies drugs that are more efficient and safer. In India, scabies is more prevalent in overcrowded communities with low socioeconomic conditions,

S. No: 221

Title of the Collaborative activity: Effect of CYP3A4 Inhibitor Erythromycin on the Pharmacokinetics of Lignocaine in Subjects with liver dysfunction

Name of the collaborator: 1. Vinay Sharma Associate Professor, Department of Pharmacology, Rama Medical College Hospital & Research Centre, Hapur, Uttar Pradesh, India

Name of the participants: Dr Jyotsna Sharma, Dr Vinay Sharma, Dr Bina Shukla, Dr Arshad Hasan

Year of collaboration: 2018-19

Nature of the activity: Research

International Journal of Medical Research Professionals
P-ISSN: 2454-6356; E-ISSN: 2454-6364
DOI: 10.21276/ijmrp

IJMRP

Original Research Article.

Effect of CYP3A4 Inhibitor Erythromycin on the Pharmacokinetics Of Lignocaine in Subjects with Liver Dysfunction

Vinay Sharma[1], Jyotsna Sharma[2*], Bina Shukla[3], Arshad Hasan[1]

[1]Associate Professor, [3]Professor & Head, Department of Pharmacology,
Rama Medical College Hospital & Research Centre, Hapur, Uttar Pradesh, India.
[2*]Associate Professor, Department of Pharmacology,
Santosh Medical College & Hospital, Ghaziabad, Uttar Pradesh, India.

ABSTRACT

Background: Lignocaine is a local anaesthetic agent that is also effectively in the acute intravenous treatment of ventricular arrhythmias. The aim of this study was to evaluate the effect of erythromycin, as a prototypical CYP3A4 inhibitor, on the disposition kinetics of lignocaine in healthy volunteers and patients with liver cirrhosis.

Materials & Methods: A double-blind, randomized control study, thirty male subjects (10 healthy volunteers and 20 patients with biopsy-proven liver cirrhosis) participated in the study, after giving their informed written consent. The study design was approved by the Institutional Ethics Committee. Patients were excluded from this study if they had a history of gastrointestinal bleeding, severe encephalopathy or any other disease. None of the participants was a smoker or a heavy consumer of alcohol. They were requested to abstain from alcohol during the preceding week and throughout the period of investigation.

Results: In our study showed that there were no statistically significant differences between the three groups for age, weight, height, or body mass index. Our study indicates that only in decompensated (Child's class C) cirrhotic patients were the disposition kinetics of lignocaine profoundly altered compared with healthy volunteers. In particular, CL was approximately halved, whereas Vss was increased and, consequently, t1/2 was more than doubled.

Conclusion: This study has shown that concomitant administration of erythromycin causes a moderate but statistically significant decrease in lignocaine clearance that, contrary to predictions, is quantitatively similar in healthy subjects and cirrhotic patients. Because, erythromycin also significantly increases the AUC of MEGX, which has been shown to have 80–90% of the antiarrhythmic potency of lignocaine.

Keywords: Erythromycin, Liver Cirrhosis, Lignocaine.

***Correspondence to:**

Dr. Jyotsna Sharma,
Associate Professor,
Department of Pharmacology,
Santosh Medical College & Hospital,
Ghaziabad, Uttar Pradesh, India.

Article History:

Received: 24-03-2019, **Revised:** 19-04-2019, **Accepted:** 17-05-2019

Access this article online	
Website: www.ijmrp.com	Quick Response code
DOI: 10.21276/ijmrp.2019.5.3.054	

INTRODUCTION

Lignocaine is a local anaesthetic agent that is also effectively in the acute intravenous treatment of ventricular arrhythmias. Owing to its high lipophilicity, it is eliminated mainly by metabolism, <5%being excreted unchanged in urine.[1] The principal metabolic pathway of lignocaine in human beings is oxidative deethylation to monoethylglycinexylidide (MEGX), which is further de-ethylated to glycinexylidide (GX). The latter is hydrolysed to xylidine and then oxidized to 4- hydroxy-xylidine, the main metabolic product found in urine.[1] Cytochrome P450 (CYP) 3A4 has been proposed as the main CYP isoform responsible for MEGX formation.[2]

Erythromycin has been shown to produce quasiirreversible inhibition of CYP3A4 in vitro, via formation of a CYP3A4-iron-metabolite complex, and to cause clinically important drug interactions with CYP3A4 substrates.[3,4] According to a previous study in healthy volunteers[5], erythromycin causes a statistically significant but limited increase in lignocaine half-life, and a more pronounced increase in the MEGX area under the concentration-time curve. While the present study was in progress, a further investigation on healthy volunteers was published, which found no significant effect of erythromycin on lignocaine disposition kinetics.[6] The aim of this study was to evaluate the effect of erythromycin, as a prototypical CYP3A4 inhibitor, on the disposition kinetics of lignocaine in healthy volunteers and patients with liver cirrhosis.

S. No: 222

Title of the Collaborative activity: Comparative study to evaluate the efficacy and safety of propranolol verses amitriptyline for prophylaxis of migraine

Name of the collaborator: 1. I. P. Jain Prof. & Head, Department of Pharmacology, Govt. Medical College, Ambedkarnagar, India

Name of the participants: Dr. Kavita Dhar, Dhananjay Kumar Pandy, P.S.Singh,

Year of collaboration: 2018-19

Nature of the activity: Research

Available online on 25.08.2019 at http://jddtonline.info

Journal of Drug Delivery and Therapeutics

Open Access to Pharmaceutical and Medical Research

Open Access Research Article

Comparative Study to Evaluate the Efficacy and Safety of Propranolol versus Amitriptyline for Prophylaxis of Migraine

Dhananjay Kumar Pandey[1]*, Kavita Dhar[2],P.S. Singh [3], I. P. Jain[4], Amrita[5]

[1] PhD Research scholar, Department of Pharmacology, Santosh Medical College & Hospital, Ghaziabad, NCR, Delhi, India

[2] Associate Professor, Department of Pharmacology, Santosh Medical College & Hospital, Ghaziabad, NCR, Delhi, India

[3] Prof. & Head, Department of Pharmacology, Santosh Medical College & Hospital, Ghaziabad, NCR, Delhi, India

[4] Prof. & Head, Department of Pharmacology, Govt. Medical College, Ambedkarnagar, India

[5]Tutor, Department of Microbiology, Hind Institute of Medical sciences, Mau, Atria, Sitapur Road, Lucknow, India

ABSTRACT

Aim: To find out a prophylactic drug for migraine having better efficacy and minimal side effects. To compare the efficacy of Propranolol Vs. Amitriptyline as prophylactic agent for migraine.

Material and Methods: This was a prospective, comparative, parallel, double blind, randomized clinical trial. As per the ICHD III beta diagnostic criteria for migraine. Included subject aged between 5-65 years. A total of 126 patients were enrolled in the study, diagnosed cases of migraine were randomly allocated using random number table to either Group 1 (Period 1: To receive tablet Propranolol 4–16 weeks and Period 2: Amitriptyline 20–32 weeks) or Group 2 (Period 1: To receive tablet Amitriptyline 4–16 weeks and Period 2: Propranolol 20–32 weeks). Patients were recorded in a headache diary the number of migraine attacks, the duration of attacks in hours and the severity.

Result: In both the groups, maximum number of patients were in the age group of 5-25 years and least number of patients were 46-65 years of age. The mean Frequency of Attack of migraine in Group 1 at period 1 was 4.41±1.22 and period 2 was 4.01±0.92. In Group 2 during period 1 was 3.93 ±0.97 and in period 2 mean 4.21 ±1.02. The mean severity of Attack of migraine in Group 1 at period 1 was 2.91 ±0.84 and period 2 was 2.11 ±0.64. In Group 2 during period 1 was 2.03 ±0.71 and in period 2 mean 2.76 ±0.81. The mean duration of Attack of migraine in Group 1 at period 1 was 16.01 ±2.60 hours and period 2 was 13.51 ±2.22. In Group 2 during period 1 was 13.63 ±1.56 and in period 2 mean 15.83 ±2.00. These were statistically significant difference in Group 1 and Group 2.

Conclusion: This trial shows that Amitriptyline is superior effective compare with propranolol but propranolol is well tolerated as compared with amitriptyline in migraine prophylaxis.

Keywords: Migraine, Amitriptyline, Propranolol.

Article Info: Received 20 June 2019; Review Completed 13 Aug 2019; Accepted 18 Aug 2019; Available online 25 August 2019

Cite this article as:

Pandey DK, Dhar K, Singh PS, Jain IP, Amrita, Comparative Study to Evaluate the Efficacy and Safety of Propranolol versus Amitriptyline for Prophylaxis of Migraine, Journal of Drug Delivery and Therapeutics. 2019; 9(4-s):1022-1027
http://dx.doi.org/10.22270/jddt.v9i4-s.3730

***Address for Correspondence:**

Dhananjay Kumar Pandey, PhD Research scholar, Department of Pharmacology, Santosh Medical College & Hospital, Ghaziabad, NCR, Delhi, India

INTRODUCTION:

A migraine is a primary headache disorder characterized by recurrent headache that are moderate to severe. Typically, the headaches affect one half of the head, are pulsating in nature, and last from two to 72 hours.(1) Associated symptoms may include nausea, vomiting, and sensitivity to light, sound, or smell.(2) The pain is generally made worse by physical activity. Up to one-third of people have an aura: typically, a short period of visual disturbance that signals that the headache will soon occur. (3) Occasionally, an aura can occur with little or no headache following it. (4)

Migraines are believed to be due to a mixture of environmental and genetic factors.(5) About two-thirds of cases run in families.(6) Changing hormone levels may also play a role, as migraines affect slightly more boys than girls before puberty and two to three times more women than

S. No: 223

Title of the Collaborative activity: Comparative study of oral ivermectin, topical permethrin and benzyl benzoate in the treatment of scabies

Name of the collaborator: 1. Praveen Agarwal Department of Pharmacology, FH Medical College, Tundla, Uttar Pradesh, India, 2. Jyostna Sharma Department of Pharmacology, Santosh University, Ghaziabad, NCR-Delhi

Name of the participants: Dr.Kavita Dhar Bagati, G. Chitti Babu, Dr.Praveen Agarwal, Jyostna Sharma

Year of collaboration: 2018-19

Nature of the activity: Research

International Journal of Research in Medical Sciences
Babu GC et al. Int J Res Med Sci. 2019 Dec;7(12):4743-4747
www.msjonline.org
pISSN 2320-6071 | eISSN 2320-6012

DOI: http://dx.doi.org/10.18203/2320-6012.ijrms20195549

Original Research Article

Comparative study of oral ivermectin, topical permethrin and benzyl benzoate in the treatment of scabies

G. Chitti Babu[1], Kavita Dhar Bagati[1]*, Praveen Agarwal[2], Jyostna Sharma[1]

[1]Department of Pharmacology, Santosh University, Ghaziabad, NCR-Delhi, India
[2]Department of Pharmacology, FH Medical College, Tundla, Uttar Pradesh, India

Received: 11 November 2019
Accepted: 16 November 2019

***Correspondence:**
Dr. Kavita Dhar Bagati,
E-mail: dhar.kavita12@gmail.com

ABSTRACT

Background: Efficacy of these modalities as shown by various investigations are inconsistent and ambiguous. Thus, evidence based effective treatment option is warranted. Aim of the study was to compare the efficacy of oral ivermectin, topical permethrin and benzyl benzoate in the treatment of uncomplicated scabies.
Methods: Patients with confirmed diagnosis of scabies were included in this study. One hundred and ninety-five subjects were included in this investigation as per inclusion and exclusion criteria laid down. Equal numbers of patients were randomly allocated to one of the three treatment groups. Efficacy of three groups [oral ivermectin (Group A), topical permethrin (Group B) and benzyl benzoate (Group C)] of drugs was compared in terms of improvement in clinical grading of disease (%) and improvement in clinical grading of pruritus (%) during follow up visits.
Results: Those subjects receiving topical permethrin, at 1st follow up 56.9% showed cure rate which increased to 89.2% at 2nd follow up with respect to clinical improvement in pruritus. Maximum relief in severity of pruritus at the end of 6th week was reported by 58(89.2%) patients receiving group B treatment modality followed by 52 patients (80%) in arm A. Regarding efficacy of three treatment groups in terms of improvement in severity of lesion at the end of 6 weeks, maximum number of patients 57(87.7%), receiving group B treatment reported improvement which is better than other two treatment groups.
Conclusions: maximum number of patients receiving topical Permethrin treatment reported improvement better than other Oral Ivermectin therapy and topical benzyl benzoate. Oral ivermectin may serve a good alternative for managing scabies under certain conditions like poor compliance to topical scabicides.

Keywords: Benzyl benzoate, Efficacy, Ivermectin, Scabies, Permethrin

INTRODUCTION

Scabies is a skin infestation and clinical condition frequently encountered by health care providers in India. It is caused by a mite i.e. ecto-parasite of skin namely *Sarcoptes scabiei var*. hominis.[1] Characteristic feature of scabies is intense itching reported by the infected patients as it burrows under the subject's skin. Scabies affects more than three million people in India. Condition is characterized by papular or vesicular eruption with pruritis which is aggravated by warmth and more intense at nighttime.[2] Acropustulosis or blisters and pustules on palms and soles of feet are characteristically seen in infants affected with scabies.[3]

Scabies is a disease frequently seen among residents of lower socio-economic strata. Current recommendations direct the physicians not to treat only the affected individual but all those people who are in contact with the patient.[4] Treatment is often hindered by inappropriate or delayed diagnosis, poor treatment compliance or uptake and improper use of topical compounds such as

S. No: 224

Title of the Collaborative activity: A Comparative Evaluation of Mechanical Properties of Four Different Restorative Materials: An In Vitro Study

Name of the collaborator: 1. Devashish Department of Pedodontics and Preventive Dentistry, Army Dental Corp, India

Name of the participants: Nahid Iftikhar, Devashish, Binita Srivastava, Nidhi Gupta, Natasha Ghambir, and Rashi-Singh

Year of collaboration: 2018-19

Nature of the activity: Research

ORIGINAL ARTICLE

A Comparative Evaluation of Mechanical Properties of Four Different Restorative Materials: An *In Vitro* Study

Nahid Iftikhar[1], Devashish[2], Binita Srivastava[3], Nidhi Gupta[4], Natasha Ghambir[5], Rashi-Singh[6]

Abstract

Objectives: The purpose of this study is to compare the mechanical properties (compressive strength (CS) and diametral tensile strength (DTS)) of four different restorative materials: conventional glass ionomer (Fuji IX), ClearFil AP-X, Filtex Z350-XT, and Cention N.

Materials and methods: Specimens ($n = 80$) were prepared from Fuji IX, ClearFil AP-X, Filtex Z350-XT, and Cention N for testing compressive strength and DTS.

Statistical analysis: Results obtained were subjected to one-way ANOVA and Tukey's *post hoc* test at significance ($p < 0.001$).

Results: There were significant differences among restorative materials tested. ClearFil AP-X exhibits the highest mechanical properties (CS and DTS) and least values were obtained by the Fuji IX.

Conclusion: Strength is one of the most important criteria for the selection of a restorative material. Stronger materials better resist deformation and fracture, presenting more equitable stress distribution, greater probability, and greater stability of clinical success.

Keywords: Compressive strength, Diametral tensile strength, Restorative materials.

International Journal of Clinical Pediatric Dentistry (2019): 10.5005/jp-journals-10005-1592

Introduction

Dental caries is an age-old disease which has been the blight of affliction in the oral cavity. It is one of the most widespread diseases in the population due to high ingestion of carbohydrates and lack of knowledge regarding proper oral hygiene methods. Once it occurs, restoring the carious lesions becomes compulsory. Hence, when the choice of restorative materials is made, certain properties should be considered, such as adhesion to the tooth structure, load-bearing strength of the materials, biocompatibility retention, and simplicity of application.[1] For posterior restorations, the materials have to withstand forces of compression and tension. From the earlier materials like silver amalgam to latest advances in composites, posterior restorative materials have been constantly evolving. Each material used to restore posterior teeth has specific advantages and disadvantages and these should be suspiciously weighed before selecting a restorative material.[2]

Glass ionomer cement (GIC) was introduced in 1972 by Wilson and Kent for restorative and preventive applications. Its unique properties such as adhesion to moist teeth, lack of exothermic polymerization, anticarcinogenic character, excellent adhesion to dentin, satisfactory biocompatibility, and coefficient of thermal expansion similar to that of tooth make it an important material for dental restorations. However, one of the major drawbacks of GIC is its weak mechanical properties such as toughness, brittleness, and low compressive strength, because of which alternative filling materials have been researched.[3–5,13]

In the last four decades, there have been tremendous improvements and innovations in the development of more constant composite materials. These developments were focused mainly on reducing polymerization shrinkage and improving the mechanical properties. The progression in filler and polymer technology of dental composite resins has led to a wide range of composite material selections based on clinical situation.[6] Nanotechnology has a great impact on restorative dentistry by offering refinements to the already available resin-based composite system. These materials were introduced in 2002 which were formulated with nanomer and nanocluster filler particles, which were expected to be useful for all restorative applications. But they have the limitation that they cannot be used as posterior restoration materials where isolation is poor and wear is high.[7]

Cention N (Ivoclar Vivadent) is a recently introduced tooth-colored, restorative filling material for bulk placement in retentive preparations with or without the application of an adhesive. It is an "alkasite" restorative which is a new category of filling material, like compomer, and is essentially a subgroup of the composite resin. Cention N is a urethane dimethacrylate (UDMA)-based, self-curing powder/liquid restorative with optional additional light curing. The liquid comprises of dimethacrylates and initiators, while the powder contains various glass fillers, initiators, and pigments. It is radio opaque and contains alkaline glass fillers capable of releasing fluoride, calcium, and hydroxide ions. Due to the sole use of cross-linking methacrylate monomers in combination with a stable, efficient self-cure initiator, Cention N displays a high polymer network density and degree of polymerization over the complete depth of the restoration.[8,9]

[1,3–6]Department of Pedodontics and Preventive Dentistry, Santosh Dental College and Hospital, Ghaziabad, Uttar Pradesh, India

[2]Department of Pedodontics and Preventive Dentistry, Army Dental Corp, India

Corresponding Author: Nahid Iftikhar, Department of Pedodontics and Preventive Dentistry, Santosh Dental College and Hospital, Ghaziabad, Uttar Pradesh, India, Phone: +91 8171659121, e-mail: nahidiftikhar02@gmail.com

How to cite this article: Iftikhar N, Devashish, *et al.* A Comparative Evaluation of Mechanical Properties of Four Different Restorative Materials: An *In Vitro* Study. Int J Clin Pediatr Dent 2019;12(1):47–49.

Source of support: Nil

Conflict of interest: None

S. No: 225

Title of the Collaborative activity: Comparative evaluation of guided bone regeneration in alveolar cleft with autologous and allogenic graft materials

Name of the collaborator: St Thomas Hosputal, Malakkara, Pathanamthitta, Kerala India

Name of the participants: Mathew PC

Year of collaboration: 2018-19

Nature of the activity: Research

Received: 2 February 2018 | Revised: 21 September 2018 | Accepted: 30 September 2018

DOI: 10.1111/clr.13380

ORIGINAL RESEARCH

WILEY CLINICAL ORAL IMPLANTS RESEARCH

Comparison of allogeneic and autogenous bone grafts for augmentation of alveolar ridge defects—A 12-month retrospective radiographic evaluation

Frank R. Kloss[1] | Vincent Offermanns[2] | Anita Kloss-Brandstätter[3]

[1]Private Clinic for Oral, Maxillofacial and Plastic Facial Surgery, Lienz, Austria

[2]Department of Cranio-, Maxillofacial and Oral Surgery, Medical University Innsbruck, Innsbruck, Austria

[3]Carinthia University of Applied Sciences, Villach, Austria

Correspondence
Frank R. Kloss, Private Clinic for Oral, Maxillofacial and Plastic Facial Surgery, Lienz, Austria.
Email: info@mkg-kloss.at

Abstract

Objectives: The aim of this study was to compare three-dimensional alterations following the use of autogenous versus allogeneic onlay grafts for augmentation at single tooth defects.

Materials and methods: Alveolar bone width at specific implant sites were assessed using sagittal and cross-sectional CBCT images prior grafting and at three subsequent time points. Twenty-one patients received autogenous bone blocks harvested from the retromolar region and another 21 patients received freeze-dried cancellous allogeneic bone blocks.

Results: The vertical and horizontal dimensions did not significantly differ between autogenous and allogeneic bone grafts at any time point. In addition, there were no statistically significant differences in graft remodeling rates between autogenous (mean shrinkage rate after 12 months: 12.5% ± 7.8%) and allogeneic onlay grafts (mean shrinkage rate after 12 months: 14.4% ± 9.8%).

Conclusions: Freeze-dried cancellous allogeneic bone blocks showed equivalent volumetric shrinkage rates as autogenous bone blocks when used for treating circumscribed bone defects classified as Type-II to Type-IV according to the ITI-treatment guide categories. Therefore, it is not necessary to over-contour the alveolar ridge when using allogeneic blocks for treating single tooth defects, but to apply the same procedure as when using autogenous blocks.

KEYWORDS
allogeneic, alveolar ridge defect, augmentation, autogenous, dental implants, graft remodeling

1 | INTRODUCTION

Despite the development of diameter-reduced and short implants, challenging situations for proper implant placement due to advanced bone loss are a regular occurrence. In these situations, guided bone regeneration with the purpose of increasing the alveolar ridge dimensions to enable a successful dental implant installation remains inevitable. The most widely used material for this kind of surgery is autogenous bone, which is currently considered the gold standard due to its osteoconductivity, osteoinductivity, and osteogenecity (Jensen & Sindet-Pedersen, 1991; Laurencin, Khan, & El-Amin, 2006; Listrom & Symington, 1988). Autogenous bone grafts can be harvested intraorally from the mandibular ramus and the chin, whereas the iliac crest represents the most frequently used extraoral donor

S. No: 226

Title of the Collaborative activity: Relationship between Telomere Length, Endothelin - 1, Inflammatory markers and oxidative stress in preeclampsia.

Name of the collaborator: Department of Biochemistry, GIMS, Greater Noida, UP-201306

Name of the participants: Ravrori Rao

Year of collaboration: 2018-19

Nature of the activity: Research

S. No: 226

Letter of Research Collaboration

This is hereby agreed with Santosh University (Ghaziabad) through respective authorized signatories of _____

Collaborates for Research as per following details:

Title of Research: Relationship between telomere length, endothelin-1 marker of inflammation and oxidative stress in preeclampsia.

Name of Primary Researcher: RAVOORI SAIDGSWAR RAO, Batch 2017, Biochemistry

Co-Researcher (if any): – N.A.

Research Location: Santosh University (Ghaziabad)/ (Govt. institute) at Medical sciences Greater Noida, UP.

Co-guide/Mentor Allocated: Dr. Manisha singh

Designation & Address of Co-guide/Mentor: Associate professor of Biochemistry GIMS, Greater Noida, UP

Duration of Project: from.....2018..... to.....2021.....

Under this agreement, the two institutions agree to share their infrastructure and resources for the said research work.

For Santosh Deemed to be University
Dean Research

Name and Signature of HOD/Principal/Dean-
Santosh University
No.1, Santosh Nagar, Pratap Vihar,
Ghaziabad, Uttar Pradesh 201009

Name and Signature of
HOD/Principal/Dean
(Collaborating Institute)
& Co Guide

Head Department of Biochemistry
Government Institute of Medical Sciences
Greater Noida

S. No: 227

Title of the Collaborative activity: A Study on Molecular Characterization of Ceftriaxone Resistance in Salmonella Enterica Serovar Typhi & Paratyphi Isolated from a Tertiary Care Hospital

Name of the collaborator: Department of Microbiology, Army Collage of Medical Sciences, New Delhi-110001

Name of the participants: Sanjay Singh

Year of collaboration: 2018-19

Nature of the activity: Research

S. No: 227

SANTOSH
Deemed To Be University

This is hereby agreed with Santosh Deemed to be University (Ghaziabad)through respective authorized signatories that this HEI collaborates for Doctoral Research as per following details:

Title of Research: A study on Molecular characterization of ceftriaxone resistance in Salmonella entericaservortyphi and paratyphi isolated from a tertiary care hospital

Name of Primary Researcher: Sanjay Singh Kaira

Designation in HEI:

Co-Researcher (if any):

Research Location: Santosh Deemed to be University (Ghaziabad)

Mentor Allocated: Dr.AnuradhaMakkar

Mentor Affiliation: Army college of medical sciences, New Delhi

Duration of Project: from...2018..... to.....2021.....

Under this agreement, the two institutions agree to share their infrastructure and resources for the said researc work.

Name and Signature of HOD/~~Principal/Dean~~

Dr Anuradha Makkar
M.D Microbiology
Prof & HOD
Dept of Microbiology (AFMS)

For Santosh Deemed to be University

Dean Research

Scanned by CamScanner

S. No: 228

Title of the Collaborative activity: A Morphometric study on the renal vasculature and its anatomical variants in the North Indian population by Multi detector computed tomography

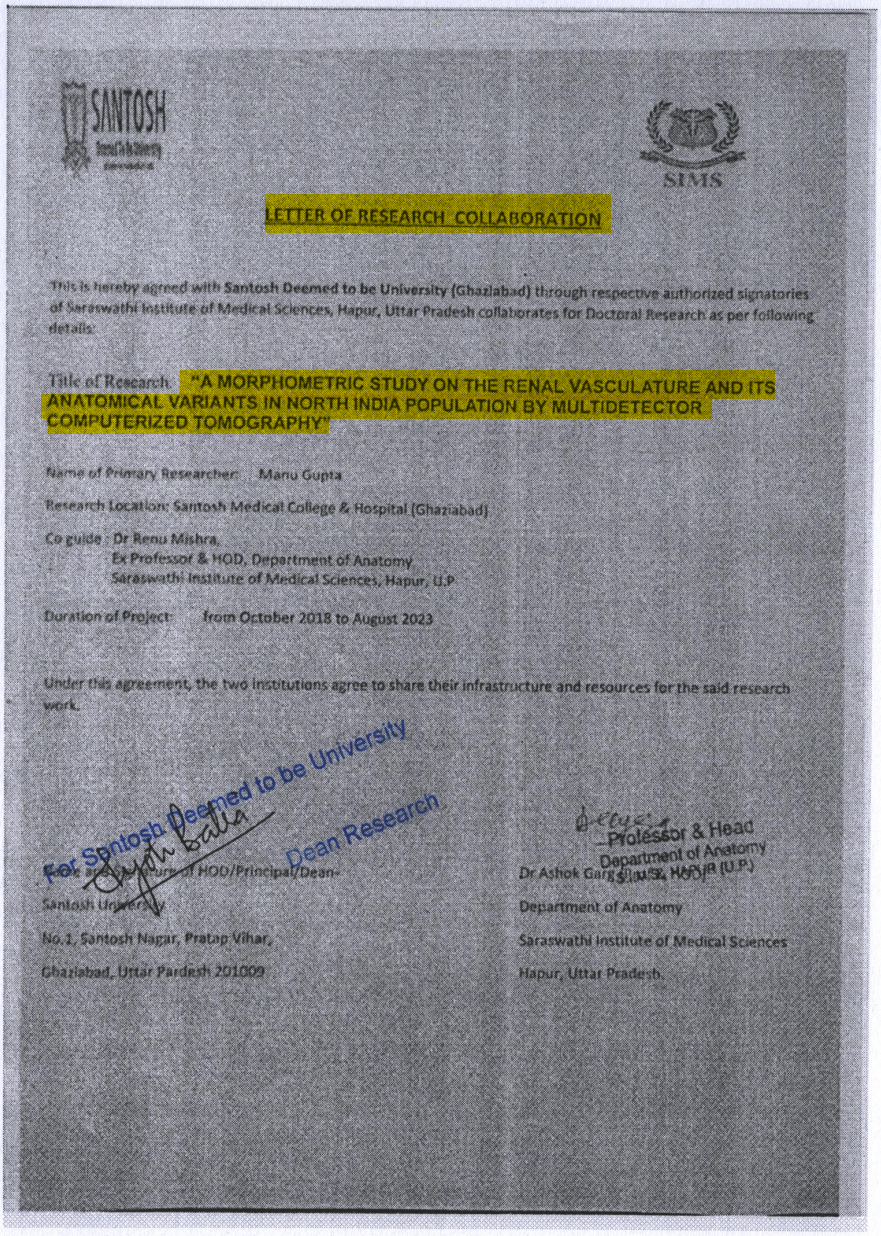
Name of the collaborator: Department of Anatomy, Saraswathi institute of Medical Science Hapur, (UP)-245101

Name of the participants: Manu Gupta

Year of collaboration: 2018-19

Nature of the activity: Research

S. No: 228



SANTOSH

SIMS

LETTER OF RESEARCH COLLABORATION

This is hereby agreed with **Santosh Deemed to be University** (Ghaziabad) through respective authorized signatories of Saraswathi Institute of Medical Sciences, Hapur, Uttar Pradesh collaborates for Doctoral Research as per following details:

Title of Research: "A MORPHOMETRIC STUDY ON THE RENAL VASCULATURE AND ITS ANATOMICAL VARIANTS IN NORTH INDIA POPULATION BY MULTIDETECTOR COMPUTERIZED TOMOGRAPHY"

Name of Primary Researcher: Manu Gupta

Research Location: Santosh Medical College & Hospital (Ghaziabad)

Co guide : Dr Renu Mishra,
Ex Professor & HOD, Department of Anatomy
Saraswathi Institute of Medical Sciences, Hapur, U.P

Duration of Project: from October 2018 to August 2023

Under this agreement, the two institutions agree to share their infrastructure and resources for the said research work.

For Santosh Deemed to be University

Dean Research

Professor & Head
Department of Anatomy

Dr Ashok Garg [M.S., H.O.D.]
Department of Anatomy
Saraswathi Institute of Medical Sciences
Hapur, Uttar Pradesh.

https://drive.google.com/file/d/1-TOriaUJDjSU1MapdSNWELAxr__IvOO5/view 1/1

S. No: 229

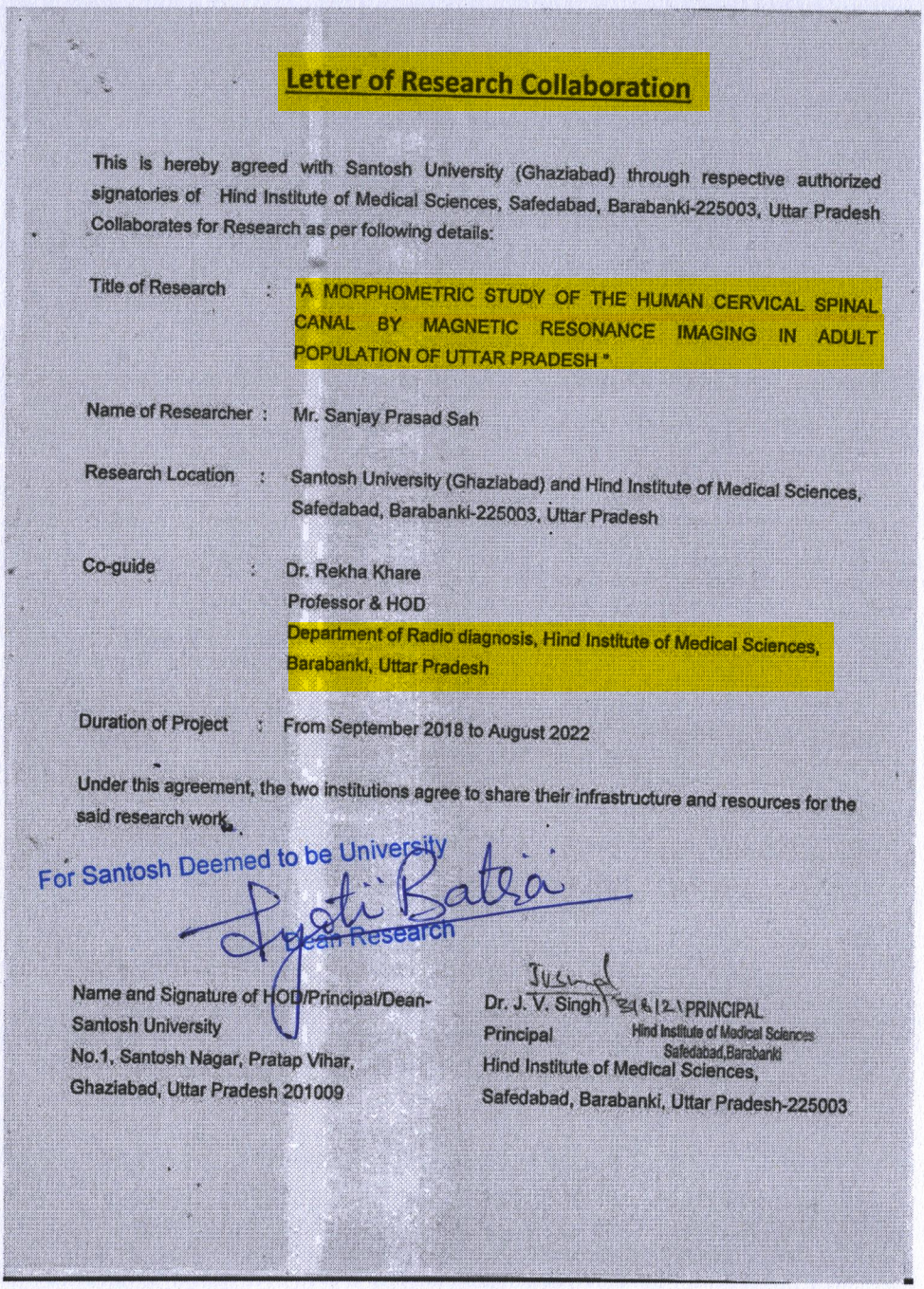
Title of the Collaborative activity: A morphometric study of the Human Cervical Spinal Canal by Magnetic Resonance Imaging in Adult Population of Uttar Pradesh

Name of the collaborator: Departmemt of Anatomy, Hind Institue of Medical Science, Safedabad, Barabanki, UP-22500

Name of the participants: Sanjay Prashad

Year of collaboration: 2018-19

Nature of the activity: Research



Letter of Research Collaboration

This is hereby agreed with Santosh University (Ghaziabad) through respective authorized signatories of Hind Institute of Medical Sciences, Safedabad, Barabanki-225003, Uttar Pradesh Collaborates for Research as per following details:

Title of Research : "A MORPHOMETRIC STUDY OF THE HUMAN CERVICAL SPINAL CANAL BY MAGNETIC RESONANCE IMAGING IN ADULT POPULATION OF UTTAR PRADESH"

Name of Researcher : Mr. Sanjay Prasad Sah

Research Location : Santosh University (Ghaziabad) and Hind Institute of Medical Sciences, Safedabad, Barabanki-225003, Uttar Pradesh

Co-guide : Dr. Rekha Khare
Professor & HOD
Department of Radio diagnosis, Hind Institute of Medical Sciences, Barabanki, Uttar Pradesh

Duration of Project : From September 2018 to August 2022

Under this agreement, the two institutions agree to share their infrastructure and resources for the said research work.

For Santosh Deemed to be University
Jyoti Batra
Dean Research

Name and Signature of HOD/Principal/Dean-
Santosh University
No.1, Santosh Nagar, Pratap Vihar,
Ghaziabad, Uttar Pradesh 201009

Dr. J. V. Singh 21.12.\PRINCIPAL
Principal
Hind Institute of Medical Sciences
Safedabad,Barabanki
Hind Institute of Medical Sciences,
Safedabad, Barabanki, Uttar Pradesh-225003

https://drive.google.com/file/d/1oiGeduiXRHW894TAuQukqx-V8bq8lzho/view 1/1

S. No: 230

Title of the Collaborative activity: The Pattern of Arterial Supply of human Brain & its Variations As Seen In "Magnetic Resonance Angiography of Brain" in North Indian population

Name of the collaborator: Department of Radio Diagnosi, Rama Medical Collage Plkhuwa, Hapur(UP)-245101

Name of the participants: Vidit Pratap

Year of collaboration: 2018-19

Nature of the activity: Research

Letter of Research Collaboration

This is hereby agreed with Santosh University (Ghaziabad) through respective authorized signatories of Rama Medical College, Hospital & research centre Pilkhuwa, Hapur, Pin Code 245304 Uttar Pradesh. Collaborates for Research, as per following Details:

Title of Research : THE PATTERN OF ARTERIAL SUPPLY OF HUMAN BRAIN & ITS VARIATIONS AS SEEN IN "MAGNETIC RESONANCE ANGIOGRAPHY OF BRAIN" IN NORTH INDIAN POPULATION

Name of Researcher : Vidit Pratap Dixit

Research Location : Santosh University (Ghaziabad) / Rama Medical College Hospital & research centre Pilkhuwa, Hapur pin Code 245304.

Co-Guide : Dr. Vanita Gupta Prof & Head, Department of Anatomy Rama medical college Pilkhuwa hapur U.P.

Co-Guide : Dr. Rajul Rastogi Ex. Associate Prof. Department of Radio diagnosis, Rama Medical College Pilkhuwa, Hapur.

Duration of Project : From September 2018 to August 2023

Under this agreement, the two institutions agree to share their infrastructure and resources for the said research work

For Santosh Deemed to be University
Jyoti Batra
Dean Research

Name and Signature of
HOD/Principal/Dean Santosh
University
No. 1, Santosh Nagar, Pratap Vihar,
Ghaziabad, Uttar Pradesh 201009

Dr. Vanita Gupta
Principal
Rama [illegible]
Research Centre, [illegible]
Rama Medical College Pilakhuwa
Hapur 245304

S. No: 231

Title of the Collaborative activity: Evaluation of oxidative stress and thyroid function in copd patients with type ii diabetes mellitus.

Name of the collaborator: Department of Biochemistry, AL-FALAH MEDICAL COLLAGE

Name of the participants: Himani Aggarwal

Year of collaboration: 2018-19

Nature of the activity: Research

S. No: 231

SANTOSH
Deemed to be University
(Established u/s 3 of the UGC Act, 1956)

AL-FALAH MEDICAL

Letter of Research Collaboration

This is hereby agreed with Santosh University (Ghaziabad) through respective authorized signatories of **AL-FALAH SCHOOL OF MEDICAL SCIENCES AND RESEARCH CENTRE** Collaborates for Research as per following details:

Tittle of Research: **Evaluation of Oxidative stress and Thyroid Function in COPD Patients with Type II**

Name of Primary Researcher: Himani Agarwal

Co-Researcher (if any): NIL

Research Location: **Santosh University (Ghaziabad)/ AL-FALAH SCHOOL OF MEDICAL SCIENCES AND RESEARCH CENTRE**

Co-guide/Mentor Allocated: Dr. Shilpa Mittal

Designation & Address of Co-guide/Mentor: Associate Professor, Biochemistry Dept
AL-FALAH MEDICAL COLLEGE

Duration of Project: from .....2018.....to.....2021.....

Under this agreement, the two institutions agree to share their infrastructure and resources for the said research work.

For Santosh Deemed to be University
Dean Research

Name and Signature of HOD/Principal/
Dean-Santosh University
No.1, Santosh Nagar, Pratap Vihar,
Ghaziabad, Uttar Pradesh 201009

Name and Signature of
HOD/Principal/Dean
(Collaborating Institute)

S. No: 232

Title of the Collaborative activity: Anaylsis of cardio vascular changes between hypertensive and normotensive Type II Diabetes patient by noval biochemical markers

Name of the collaborator: Department of Biochemistry, Mayo Institute of Medical Science Faizabad Road Gadia Barabanki U.P. Pin- 225001

Name of the participants: Niharika Singh

Year of collaboration: 2018-19

Nature of the activity: Research

S. No: 232

SANTOSH UNIVERSITY
(Established u/s 3 of the UGC Act, 1956)

॥ ज्योतिर्गमय ॥

Letter of Research Collaboration

This is hereby agreed with Santosh University (Ghaziabad) through respective authorized signatories of **Mayo Institute of medical sciences** Collaborates for Research as per following details:

Tittle of Research: **Analysis of cardiovascular changes between hypertensive and normotensive Type II Diabetes patient**

Name of Primary Researcher: Dr. NIHARIKA SINGH

Co-Researcher (if any): NIL

Research Location: **Santosh University (Ghaziabad)/ Mayo Institute of medical sciences**

Co-guide/Mentor Allocated: Dr. JUHI AGGRAWAL

Designation & Address of Co-guide/Mentor: Professor, HOD Department of Biochemistry
Santosh Medical College

Duration of Project: from .....2018.....to.....2022.....

Under this agreement, the two institutions agree to share their infrastructure and resources for the said research work.

For Santosh Deemed to be University
Dean Research

Name and Signature of HOD/Principal/
Dean-Santosh University
No.1, Santosh Nagar, Pratap Vihar,
Ghaziabad, Uttar Pradesh 201009

Name and Signature of
HOD/Principal/Dean
(Collaborating Institute)

S. No: 233

Title of the Collaborative activity: A double blind randomized controlled trial to access the influence of hamulotomy during palatoplasty on hearing loss

Name of the collaborator: St Thomas Hosputal, Malakkara, Pathanamthitta, Kerala India

Name of the participants: Mathew PC

Year of collaboration: 2018-19

Nature of the activity: Research

S. No: 233

SANTOSH
Deemed to be University
(Established u/s 3 of the UGC Act, 1956)

ST. THOMAS HOSPITAL
MALAKKARA

Letter of Research Collaboration

This is hereby agreed with Santosh University (Ghaziabad) through respective authorized signatories of ST THOMAS HOSPITAL MALAKKARA, PATHANAMTHITTA, KERALA, INDIA Collaborates for Research as per following details:

Till of Research: **A double blind randomized controlled trial to assess the influence of hamulotomy during palatoplasty on hearing loss**

Name of Primary Researcher: DR MATHEW PC

Co-Researcher (if any): NIL

Research Location: **ST THOMAS HOSPITAL MALAKKARA, PATHANAMTHITTA, KERALA INDIA**

Co-guide/Mentor Allocated: **DR SOMANATHAN NAIR**

Designation & Address of Co-guide/Mentor: HOD, Department of Surgery, ST Thomas Hospital

Duration of Project: from .....2018.....to.....2023.....

Under this agreement, the two institutions agree to share their infrastructure and resources for the said research work.

ST. THOMAS HOSPITAL KERALA PIN-689 532 MALAKKARA

For Santosh Deemed to be University
Dean Research

Name and Signature of HOD/Principal/
Dean-Santosh University
No.1, Santosh Nagar, Pratap Vihar,
Ghaziabad, Uttar Pradesh 201009

Name and Signature of
HOD/Principal/Dean
(Collaborating Institute)

S. No: 234

Title of the Collaborative activity: Relationships between telomere length, emndothelin-1 markers of inflammation and oxidative stress preeclampsia

Name of the collaborator: Department of Biochemistry, GIMS, Greater Noida, UP-201306

Name of the participants: Ravrori Rao

Year of collaboration: 2018-19

Nature of the activity: Research

S. No: 234

SANTOSH
Deemed to be University
(Established u/s 3 of the UGC Act, 1956)

Letter of Research Collaboration

This is hereby agreed with Santosh University (Ghaziabad) through respective authorized signatories of Govt. Institute of Medical Sciences, Greater Noida Collaborates for Research as per following details:

Title of Research: **Relationship between telomere length, endothelin-1 markers of inflammation and oxidative stress preeclampsia.**

Name of Primary Researcher: Dr. Ravoori Sazdeswar Rao, Batch 2017, Biochemistry

Co-Researcher (if any): N.A.

Co-Guide/Mentor Allocated: Dr. Manisha Singh

Research Location: Santosh University (Ghaziabad)/Govt. Institute of Medical Sciences, Greater Noida, U.P

Designation & Address of Co-Guide/Mentor: Associate Professor of Biochemistry Govt. Institute of Medical Sciences, Greater Noida, U.P.

Duration of Project: from.....2018..... to.....2021.....

Under this agreement, the two institutions/departments agree to share the infrastructure and resources for research work.

For Santosh Deemed to be University
Dean Research

Name and Signature of HOD/Principal/
Dean-Santosh University
No.1, Santosh Nagar, Pratap Vihar,
Ghaziabad, Uttar Pradesh 201009

Co Guide

Name and Signature of
HOD/Principal/Dean
(Collaborating Institute)

Head Department of Biochemistry
Government Institute of Medical Sciences
Greater Noida

S. No: 235

Title of the Collaborative activity: A study on molecular characterization of ceftriaxone resistance in Salmonella entericaservortyphi and paratyphl isolated from a tertiary care hospital

Name of the collaborator: Department of Microbiology, Army Collage of Medical Sciences, New Delhi-110001

Name of the participants: Sanjay Singh

Year of collaboration: 2018-19

Nature of the activity: Research

S. No: 235

SANTOSH
Deemed to be University
(Established u/s 3 of the UGC Act, 1956)

Letter of Research Collaboration

This is hereby agreed with Santosh University (Ghaziabad) through respective authorized signatories of HEI Collaborates for Research as per following details:

Till of Research: **Study of virulence factors and molecular characterization of multi drug resistant Pseudomonas aeruginosa from Intensive Care Unit.**

Name of Primary Researcher: Mr Shivendra Dutt Shukla

Designation in HEI: Tutor

Co-Researcher (if any): NIL

Research Location: **Santosh Deemed to be University, Ghaziabad, Uttar-Pradesh.**

Mentor Allocated: Dr Razia Khatoon, Professor, Department of Microbiology, Hind Institute of Medical Sciences, Mau, Ataria, Sitapur-261303, (U.P.), INDIA.

Mentor Affiliation: Hind Institute of Medical Sciences, Mau, Ataria, Sitapur-261303, U.P, India.

Duration of Project: from .....January 2019.....to.....October 2021.....

Under this agreement, the two institutions agree to share their infrastructure and resources for the said research work.

For Santosh Deemed to be University
Dean Research

Name and Signature of HOD/Principal/
Dean-Santosh University
No.1, Santosh Nagar, Pratap Vihar,
Ghaziabad, Uttar Pradesh 201009

Name and Signature of
HOD
(Collabor[redacted])

S. No: 236

Title of the Collaborative activity: A Morphometric Study on the Renal Vasculature and its Anatomical variants in North India population by Multidetector Computerized Tomography

Name of the collaborator: Department of Anatomy, Saraswathi institute of Medical Science Hapur, (UP)-245101

Name of the participants: Manu Gupta

Year of collaboration: 2018-19

Nature of the activity: Research

S. No: 236

SANTOSH
Deemed to be University
(Established u/s 3 of the UGC Act, 1956)

SIMS

Letter of Research Collaboration

This is hereby agreed with Santosh University (Ghaziabad) through respective authorized signatories of Saraswathi Institute of Medical Sciences, Hapur, Uttar Pradesh Collaborates for Research as per following details:

Till of Research: **"A MORPHOMETRIC STUDY ON THE RENAL VASCULATURE AND ITS ANATOMICAL VARIANTS IN NORTH INDIA POPULATION BY MULTIDETECTOR COMPUTERIZED TOMOGRAPHY"**

Name of Primary Researcher: Manu Gupta

Research Location: **Santosh Medical college & Hospital (Ghaziabad)**

Co-guide: Dr. Renu Mishra,
Ex. Professor & HOD, Department of Anatomy
Saraswathi Institute of Medical Sciences, Hapur, U.P

Duration of Project: from .....October 2018.....to.....August 2023.....

Under this agreement, the two institutions agree to share their infrastructure and resources for the said research work.

For Santosh Deemed to be University
Dean Research

Name and Signature of HOD/Principal/
Dean-Santosh University
No.1, Santosh Nagar, Pratap Vihar,
Ghaziabad, Uttar Pradesh 201009

Name and Signature of
HOD/Principal/Dean
(Collaborating Institute)

S. No: 237

Title of the Collaborative activity: A Morphometric Study of the Human Cervical Spinal Canal By Magnetic Resonance Imaging in Adult Population Of Uttar Pradesh

Name of the collaborator: Department of Anatomy, Hind Institute of Medical Science, Safedabad, Barabanki, UP-22500

Name of the participants: Sanjay Prashad

Year of collaboration: 2018-19

Nature of the activity: Research

S. No: 237

SANTOSH
Deemed to be University
(Established u/s 3 of the UGC Act, 1956)

Letter of Research Collaboration

This is hereby agreed with Santosh University (Ghaziabad) through respective authorized signatories of Hind Institute of Medical Sciences, Safedabad, Barabanki-220003, Uttar Pradesh Collaborates for Research as per following details.

Title of Research : "A MORPHOMETRIC STUDY OF THE HUMAN CERVICAL SPINAL CANAL BY MAGNETIC RESONANCE IMAGING IN ADULT POPULATION OF UTTAR PRADESH"

Name of Researcher: Mr. Sanjay Prasad Sah

Research Location: Santosh University (Ghaziabad) and Hind Institute of Medical Sciences, Safedabad, Barabanki-225003, Uttar Pradesh

Co-guide : Dr. Rekha Khare
Professor & HOD
Department of Radio diagnosis, Hind Institute of Medical Sciences, Barabanki, Uttar Pradesh

Duration of Project : From September 2018 to August 2022

Under this agreement, the two institutions agree to share their infrastructure and resources for the said research work

For Santosh Deemed to be University
Dean Research

Name and Signature of HOD/Principal/
Dean-Santosh University
No.1, Santosh Nagar, Pratap Vihar,
Ghaziabad, Uttar Pradesh 201009

Dr. J. V. Singh PRINCIPAL
Principal
Hind Institute of Medical Sciences,
Safedabad, Barabanki, Uttar Pradesh-225003

Name and Signature of
HOD/Principal/Dean,
(Collaborating Institute)

S. No: 238

Title of the Collaborative activity: The Pattern of Arterial Supply Of Human Brain & Its Variations As Seen In "Mangnetic Resonance Angiography of Brain " In North Indian Population

Name of the collaborator: Department of Radio Diagnosi, Rama Medical Collage Plkhuwa, Hapur(UP)-245101

Name of the participants: Vidit Pratap

Year of collaboration: 2018-19

Nature of the activity: Research

S. No: 238

SANTOSH
Deemed to be University
(Established u/s 3 of the UGC Act, 1956)

Letter of Research Collaboration

This is hereby agreed with Santosh University (Ghaziabad) through respective authorized signatories of Rama Medical College, Hospital & research centre Pilkhuwa, Hapur, Pin Code 245304 Uttar Pradesh. Collaborates for Research as per following details:

Tittle of Research: **THE PATTERN OF ARTERIAL SUPPLY OF HUMAN BRAIN & ITS VARIATIONS AS SEEN IN "MAGNETIC RESONANCE ANGIOGRAPHY OF BRAIN" IN NORTH INDIAN POPULATION**

Name of Researcher: Vidit Pratap Dixit

Research Location: **Santosh University (Ghaziabad)/ Rama Medical College Hospital & research centre Pilkhuwa, Hapur pin Code 245304.**

Co-guide: Dr. Varita Gupta Prof & Head, Department of Anatomy Rama medical college Pilkhuwa hapur U.P.

Co-guide: Dr. Rajul Rastogi Ex. Associate Prof. Department of Radio diagnosis, Rama Medical College Pilkhuwa, Hapur.

Duration of Project: from .....September 2018.....to.....August 2023.....

Under this agreement, the two institutions agree to share their infrastructure and resources for the said research work.

For Santosh Deemed to be University
Dean Research

Name and Signature of HOD/Principal/
Dean-Santosh University
No.1, Santosh Nagar, Pratap Vihar,
Ghaziabad, Uttar Pradesh 201009

Dr. Vanita Gupta

Name and Signature of
HOD/Principal/Dean
(Collaborating Institute)

Rama Medical College Pilakhuwa
Hapur 245304

S. No: 239

Title of the Collaborative activity: Evaluation Of Oxidation stress and Thyroid Function in COPD Patients with Type II

Name of the collaborator: Department of Biochemistry, Al-Falah Medical College

Name of the participants: Himani Aggarwal

Year of collaboration: 2018-19

Nature of the activity: Research

S. No: 239

SANTOSH
Deemed to be University
(Established u/s 3 of the UGC Act, 1956)

AL-FALAH MEDICAL

Letter of Research Collaboration

This is hereby agreed with Santosh University (Ghaziabad) through respective authorized signatories of **AL-FALAH SCHOOL OF MEDICAL SCIENCES AND RESEARCH CENTRE** Collaborates for Research as per following details:

Till of Research: **Evaluation of Oxidative stress and Thyroid Function in COPD Patients with Type II**

Name of Primary Researcher: Himani Agarwal

Co-Researcher (if any): NIL

Research Location: **Santosh University (Ghaziabad)/ AL-FALAH SCHOOL OF MEDICAL SCIENCES AND RESEARCH CENTRE**

Co-guide/Mentor Allocated: Dr. Shilpa Mittal

Designation & Address of Co-guide/Mentor: Associate Professor, Biochemistry Dept
AL-FALAH MEDICAL COLLEGE

Duration of Project: from .....2018.....to.....2021.....

Under this agreement, the two institutions agree to share their infrastructure and resources for the said research work.

For Santosh Deemed to be University
Dean Research

Name and Signature of HOD/Principal/
Dean-Santosh University
No.1, Santosh Nagar, Pratap Vihar,
Ghaziabad, Uttar Pradesh 201009

Name and Signature of
HOD/Principal/Dean
(Collaborating Institute)

S. No: 240

Title of the Collaborative activity: Analysis of Cardiovascular changes between hypertensive and normotensive Type II Diabetes Patient

Name of the collaborator: Department of Biochemistry, Mayo Institute of Medical Science Faizabad Road Gadia Barabanki U.P. Pin- 225001

Name of the participants: Niharika Singh

Year of collaboration: 2018-19

Nature of the activity: Research

S. No: 240

SANTOSH UNIVERSITY
(Established u/s 3 of the UGC Act, 1956)

॥ ज्योतिर्गमय ॥

Letter of Research Collaboration

This is hereby agreed with Santosh University (Ghaziabad) through respective authorized signatories of **Mayo Institute of medical sciences** Collaborates for Research as per following details:

Tittle of Research: **Analysis of cardiovascular changes between hypertensive and normotensive Type II Diabetes patient**

Name of Primary Researcher: Dr. NIHARIKA SINGH

Co-Researcher (if any): NIL

Research Location: **Santosh University (Ghaziabad)/ Mayo Institute of medical sciences**

Co-guide/Mentor Allocated: Dr. JUHI AGGRAWAL

Designation & Address of Co-guide/Mentor: Professor, HOD Department of Biochemistry
Santosh Medical College

Duration of Project: from .....2018.....to.....2022.....

Under this agreement, the two institutions agree to share their infrastructure and resources for the said research work.

For Santosh Deemed to be University
Dean Research

Name and Signature of HOD/Principal/
Dean-Santosh University
No.1, Santosh Nagar, Pratap Vihar,
Ghaziabad, Uttar Pradesh 201009

Name and Signature of
HOD/Principal/Dean
(Collaborating Institute)

S. No: 241

Title of the Collaborative activity: Role of 2D: 4D Ratio in the Histopathologically Diagnosed Breast Cancer Females

Name of the collaborator: 1. Dr Sajjad Jafar- Assistant Professor, Dept of Anatomy, BRD Medical College, Gorakhpur, 2. Dr Bindu Singh- Associate Professor, Dept. of Anatomy, B.R.D Medical College, Gorakhpur

Name of the participants: Dr Sajjad Jafar, Dr Vishram Singh, Dr Nlsha Kaul, Dr Bindu Singh

Year of collaboration: 2018-19

Nature of the activity: Research

S. No: 241

www.jmscr.igmpublication.org
Impact Factor (SJIF): 6.379
Index Copernicus Value: 79.54
ISSN (e)-2347-176x ISSN (p) 2455-0450
crossrefDOI: https://dx.doi.org/10.18535/jmscr/v6i12.61

IGM Publication
Journal Of Medical Science And Clinical Research
An Official Publication Of IGM Publication

Role of 2D:4D Ratio in the Histopathologically Diagnosed Breast Cancer Females

Authors
Dr Sajjad Jafar[1], Dr Vishram Singh[2], Dr NIsha Kaul[3], Dr Bindu Singh[4]
[1]Assistant Professor, Dept of Anatomy, BRD Medical College, Gorakhpur
[2]Professor and Ex HOD Dept. of Anatomy, Santosh Medical College, Ghaziabad
[3]Professor and HOD Dept. of Anatomy, Santosh Medical College, Ghaziabad
[4]Associate Professor, Dept. of Anatomy, B.R.D Medical College, Gorakhpur

Abstract
Introduction: *Carcinoma of breast is most frequent cancer in India followed by cervical cancer among females as reported in registries from Mumbai, Delhi, Kolkata and Bangalore. Breast cancer is the most common malignancy among women in the world. According to the NCRP (National Cancer Registry Program), around 25% of the total cancer cases are reported to be that of breast cancer. Several anthropological studies have found sex differences in 2D:4D ratio, with man having lower average 2D:4D ratio than women.*
Aim and Objective: *The aims of this study is to investigate 2D:4D ratio in the diagnosis of breast cancer females and control groups.*
Material and Methods: *The study was conducted on 145 histopathological diagnosed breast cancer women and their finger length ratio, compared with 145 normal healthy women with no family history of breast cancer. Digit length was measured by the Vernier caliper with a resolution of 0.01 mm.*
Results: *The finger length 2D:4D ratio were analyzed between breast cancer and control group of individuals that showed statistically difference. In present study 2D:4D ratio (P value<1) is significantly higher in case group as compared to the control group.(table-3). High 2D:4D ratio of significantly associated with breast cancer.*
Conclusion: *The finger length (2D:4D) ratio may help in identifying women with risk of breast cancer. It can serve as an inexpensive, noninvasive anatomical and effective tool to determine the individuals with breast cancer in their future.*
Keywords: *Digits ratio 2D:4D, Breast cancer, prenatal sexual Hormone.*

Introduction

Breast cancer is the most common malignancy among women in the world. Breast Cancer constitutes a major public health issue globally with over 1 million new cases diagnosed annually, resulting in over 400,000 annual deaths and about 4.4 million women living with the disease. It is the commonest site specific malignancy affecting women and the most common cause of cancer mortality in women worldwide [(1.2)].

According to the NCRP (National Cancer Registry Program), around 25% of the total cancer cases are reported to be that of breast cancer [(3)]. In 2009, estimated 40610 men & women were dying

S. No: 242

Title of the Collaborative activity: A comparative evaluation of oral health practices and habits among medical and dental students in Ghaziabad dist

Name of the collaborator: 1. Dr. Vipin Kaul-Post graduate student, (Department of Periodontics & Oral implantology), Shree Bankey Bihari Dental College & Research centre, Delhi-Hapur road, Masuri, Ghaziabad, Uttar Pradesh

Name of the participants: Dr. Vipin Kaul, Dr. Neha Gupta, Dr. Pramod Kumar Rathore, Dr. Nisha Kaul

Year of collaboration: 2018-19

Nature of the activity: Research

Medico Research Chronicles

ISSN No. 2394-3971

Original Research Article

A COMPARATIVE EVALUATION OF ORAL HYGIENE PRACTICES AND HABITS AMONG MEDICAL & DENTAL STUDENTS IN GHAZIABAD DISTRICT

Dr. Vipin Kaul[1], Dr. Neha Gupta[2], Dr. Pramod Kumar Rathore[3], Dr. Nisha Kaul[4]

1. Post graduate student, 2. Professor & HOD, 3. Reader (Department of Periodontics & Oral implantology), Shree Bankey Bihari Dental College & Research centre, Delhi-Hapur road, Masuri, Ghaziabad, Uttar Pradesh

4. Professor & HOD of Anatomy, Santosh Medical College, Ghaziabad, Uttar Pradesh, India

Submitted on: December 2018
Accepted on: December 2018
Email:
nishakaul.nk@gmail.com

Abstract

Introduction: Oral health is as an essential component of general health & is determined by knowledge of oral health behaviors. Factors like tobacco smoking, alcohol, nutritional status, and stress are associated with a wide range of oral diseases. Many oral conditions are intimately related to systemic diseases & total health care requires the combined efforts of the medical and dental professions. It is believed that dental professionals/ students get a better insight into good oral hygiene practices.

Aim: The present study was carried out to assess & compare the oral hygiene practices and habits among medical & dental students.

Materials and Methods: A structured questionnaire was prepared to inquire about oral hygiene practices, adverse oral habits, existing dental problems, dental service utilization patterns and attitude toward dental treatment& was distributed among 200 dental and 200 medical students of the second year.

Observations: Medical students had much better knowledge of some of oral hygiene practices as compared to dental students. Adverse oral habits & dental problems were comparatively more in dental students. However, the habit of regular dental checkup was more in dental students. The idea of early oral prophylaxis was lacking in both groups.

Discussion: To improve an individual's overall health and well-being, oral health promotion programs providing education regarding proper eating habits, effective maintenance of oral hygiene, and avoiding tobacco use can go a long run in improving oral health among the students.

Keywords: **oral hygiene practices, adverse oral habits, dental problems, dental checkup, comparison, medical and dental students**

Introduction

Oral health is as an essential component of general health & can be defined as "a standard of health of oral and related tissues which enable an individual to eat, speak and socialize without active disease, discomfort or embarrassment and which contributes to general well-being.

S. No: 243

Title of the Collaborative activity: Fetal tibial and foot length for prediction of gestational age: an Ultrasonographic study

Name of the collaborator: 1. G. L. Nigam-Associate Professor and Head, Dept. of Anatomy, LLRM Medical College, Meerut, Uttar Pradesh, 2. Yasmeen-Associate Professor and Head, Dept. of Radiodiagnosis, SVBP Hospital, LLRM Medical College, Meerut, Uttar Pradesh

Name of the participants: Vishnu Datt Pandey,Vishram Singh, G L Nigam, Yasmeen Usmani, Yogesh Yadav*

Year of collaboration: 2018-19

Nature of the activity: Research

Original Research Article DOI: 10.18231/2455-1732.2018.0007

Fetal tibial and foot length for prediction of gestational age: An ultrasonographic study

Vishnu Datt Pandey[1], Vishram Singh[2], G. L. Nigam[3], Yasmeen[4], Yogesh Yadav[5,*]

[1]Ph.D. Scholar, [2]Professor and Head, [5]Professor, [1,2,5]Dept. of Anatomy, Santosh Medical College, Ghaziabad, Uttar Pradesh, [3]Associate Professor and Head, Dept. of Anatomy, LLRM Medical College, Meerut, Uttar Pradesh, [4]Associate Professor and Head, Dept. of Radiodiagnosis, SVBP Hospital, LLRM Medical College, Meerut, Uttar Pradesh, India

***Corresponding Author:**
Email: yogeshyadav@msn.com

Abstract

Introduction: An accurate gestational age is must for Obstetricians and Gynecologists to make appropriate decisions, for identify and counseling women who are at risk of a preterm delivery and to evaluation of fetal growth and the detection of intrauterine growth restriction (IUGR). In our present study, we worked on fetal tibial length & foot length and found that in normal growing fetus, fetal tibial length increase with advancing gestational age and regression analysis showed a strongly significant relationship between gestational age and fetal tibial length.

Materials and Methods: 100 pregnant women underwent ultrasonographic measurements of Tibia and Foot Length from 15 to 36 weeks of gestation, in the Radio diagnosis Department.

Results: In our study, we found the earliest age at which Tibia and foot length could be seen by ultrasound was 15 weeks of gestation and mean tibia length 10.25± 0.50, mean foot length is 17.5±1.29 while at 36 weeks of gestation are 70.80±0.84 and 64.4±3.28 respectively. A strongly significant relationship has been observed between fetal foot length and gestational age by regression analysis.

Conclusion: Fetal tibia length and foot length can be considered as one of the good parameter for the determination of gestational age.

Keywords: Fetal tibial length, Fetal foot length, Gestational age by USG.

Introduction

Precise pregnancy dating is important in the interpretation of biochemical serum screening test or for guiding patients about the option of termination of pregnancy.[1] Clinical parameters such as the menstrual cycle or uterine size often are not reliable so ultrasound is considered the most precise parameter for pregnancy dating by the obstetrician. Ultrasound is a veracious and practical modality for the assessment of gestational age and, as a routine part of prenatal care, can modify obstetric management and improve antepartum care. For last ~40 years, the relationship between various fetal biometric parameters such as gestational sac mean diameter, crown rump length, femur length (FL), biparietal diameter (BPD) & abdominal circumference (AC) and gestational age have been described. Early antenatal ultrasound has been proven as an objective and precise tool for establishing gestational age.[1] Underestimation of gestational age might occurred due to underestimation of FL in cases femur achondroplasia has a characteristic pattern of normal growth of fetal foot observed by Streeter in 1920 and proposed that it could be used as tool to estimate gestational age.[2]

The development of the foot described under 4 stages by Boehm[3] as follows:

1. Stage one (2nd month): The foot is in 90 degrees equinus and adducted.
2. Stage two (beginning of 3rd month): The foot is in 90 degrees equinus, adducted and markedly supinated.
3. Stage three (middle of 3rd month): The foot dorsiflexes at the ankle, but a mild degree of equinus is still present and marked supination persists. The first metatarsal remains adducted. This stage corresponds to the fetal period of development.
4. Stage four (beginning of 4th month): The foot pronates and reaches a position of Mid-supination. A slight metatarsus varus remains. The equinus is absent.[3]

In cases of hydrocephalus, anencephaly or short-limb dwarfism fetal foot length observed by Mercer *et al.*[4] as a reliable parameter for the estimation of gestational age and particularly useful when other parameters cannot accurately predict gestational age.

Thus, the purpose of this study is to determine the accuracy of fetal foot length in estimating gestational age and correlating it with the previously approved parameters such as biparietal diameter, femur length and abdominal circumference.

The ultrasonic evaluation of morphometry of the long bones of the limbs is being increasingly utilized for fetal development and diagnosis of fetal anomalies.[5]

All of the extremities bone lengths correlate with gestational age and may used as indicators of skeletal dysplasia. Extensive study has been done by femur length, biparietal diameter and abdominal

S. No: 244

Title of the Collaborative activity: Fetal humerus Length for Prediction of Gestational Age: An Ultrasonographic Study

Name of the collaborator: 1. Sachin Kumar-1Medical Officer, SVBP Hospital associated with LLRM Medical College, Meerut, UP, India, 2. Vishnu Datt Pandey-Professor, Department of Anatomy, Santosh Medical College, Ghaziabad, Delhi- NCR, India

Name of the participants: Sachin Kumar, Vishnu Datt Pandey, Yogesh Yadav

Year of collaboration: 2018-19

Nature of the activity: Research

S. No: 244

www.jmscr.igmpublication.org
Impact Factor (SJIF): 6.379
Index Copernicus Value: 79.54
ISSN (e)-2347-176x ISSN (p) 2455-0450
crossrefDOI: https://dx.doi.org/10.18535/jmscr/v6i12.27

IGM Publication
Journal Of Medical Science And Clinical Research
An Official Publication Of IGM Publication

Fetal humerus Length for Prediction of Gestational Age: An Ultrasonographic Study

Authors
Sachin Kumar[1], Vishnu Datt Pandey[2], Yogesh Yadav[3]
[1]Medical Officer, SVBP Hospital associated with LLRM Medical College, Meerut, UP, India
[2]Assistant Professor Department of Anatomy, LLRM Medical College, Meerut, UP, India
[3]Professor, Department of Anatomy, Santosh Medical College, Ghaziabad, Delhi- NCR, India
*Corresponding Author
Dr Vishnu Datt Pandey
Mob- 8449480929, Email: *vishnudattpaney@gmail.com*

Abstract
Introduction: *An accurate determination of gestational age is must for Obstetricians and Gynecologists to make appropriate decisions, for identifying and counseling of women who are at risk of a preterm delivery. It is also essential to evaluate fetal growth and the detection of intrauterine growth restriction (IUGR). In our present study, we worked on fetal humerus length and found that in normal growing fetus, fetal it increase with advancing gestational age and regression analysis showed a strongly significant relationship between gestational age and fetal humerus length. The purpose of this study is to find out the other parameters such as foot length and tibial length which can be used to determine the gestational age or can be used in other conditions where the previous parameters are unreliable and can also be used as supplement in the diagnosis of many genetic defects.*
Methods: *100 pregnant women underwent ultrasonographic measurements of humerus Length from 13 to 40 weeks of gestation during routine ANC, in the Radio diagnosis Department.*
Results: *In our study, we found the earliest age at which humerus length could be seen by ultrasound was 13 weeks of gestation and mean humerus length 13.12± 0.50, while at 40 weeks of gestation 69.00±00 respectively. A strongly significant relationship has been observed between fetal humerus length and gestational age by regression analysis.*
Conclusion: *Humerus length can be considered as one of the good parameter for the determination of gestational age.*
Keywords: *Fetal humerus length.*

Introduction

The accurate dating of pregnancy is critically important for pregnancy management from the first trimester to delivery, and is particularly necessary for determining viability in premature labour and in post-dates deliveries.[1]

Prior to the widespread use of ultrasound, caregivers relied on a combination of history and physical examination to clinically determine gestational age. Ultrasound gave clinicians a method to measure the fetus and therefore to estimate gestational age. Much of our current clinical practice is based on studies from the

S. No: 245

Title of the Collaborative activity: Gallbladder wall thickening at ultrasonography- A review

Name of the collaborator: 1. Tiwari Richa-Associate Professor Department of Radiology, Govt. medical college, Saharanpur, Uttar Pradesh, India, 2. Tandon Ashutosh-Associate Professor Department of Radiology, Govt. medical college, Saharanpur, Uttar Pradesh, India

Name of the participants: Singh Durgesh, Singh Vishram, Yadav Yogesh, Tivari Richa, Tandon Ashutosh

Year of collaboration: 2018-19

Nature of the activity: Research

Singh Durgesh, Singh Vishram, Yadav Yogesh, Tiwari Richa, Tandon Ashutosh. Gallbladder wall thickening at ultrasonography - A review. IAIM, 2018; 5(12): 152-160.

Original Review Article

Gallbladder wall thickening at ultrasonography - A review»

Singh Durgesh[1], Singh Vishram[2], Yadav Yogesh[3*], Tiwari Richa[4], Tandon Ashutosh[5]

[1]PhD Student, [2]Ex. Professor and Head, [3]Professor
Department of Anatomy, Santosh Medical College and Hospital, Santosh University, Ghaziabad, Uttar Pradesh, India
[4]Assistant Professor, [5]Associate Professor
Department of Radiology, Govt. medical college, Saharanpur, Uttar Pradesh, India
[*]Corresponding author email: **yogeshyadav@msn.com**

International Archives of Integrated Medicine, Vol. 5, Issue 12, December, 2018.

Available online at http://iaimjournal.com/
ISSN: 2394-0026 (P) **ISSN: 2394-0034 (O)**
Received on: 06-12-2018 **Accepted on:** 11-12-2018
Source of support: Nil **Conflict of interest:** None declared.
How to cite this article: Singh Durgesh, Singh Vishram, Yadav Yogesh, Tiwari Richa, Tandon Ashutosh. Gallbladder wall thickening at ultrasonography - A review. IAIM, 2018; 5(12): 152-160.

Abstract

The aim of the present review was providing help for the assessment of the correct interpretation of gallbladder wall thickening and differential diagnosis at ultrasonography. Gallbladder wall thickening is a frequent son graphic finding and has been subject of great interest for being considered as a hallmark feature of acute cholecystitis, despite the fact that such a finding is observed in a number of other medical conditions. An appropriate characterization and interpretation of ultrasonography finding are of great importance, considering that the correct diagnosis has a direct impact on the treatment that in some cases includes surgery. In this article, describe a set of son graphic finding that is an association with the clinical and laboratory findings can reduce the number of diagnostic hypotheses allowing a more accurate establishment of the cause for gallbladder wall thickening through a rational data evaluation. Sonography is used as the initial imaging technique for evaluating patients with suspected acute calculus cholecystitis because of its high sensitivity at the detection of GB stones, real-time character, speed, and portability. Cholescintigraphy has the highest sensitivity and specificity in the patients who are suspected of having acute cholecystitis. The use of cholescintigraphy is limited in clinical practice Due to a combination of reasons including logistic drawbacks, broad imaging capability, and clinician referral pattern. CT is particularly useful for evaluating the many complicated cases of acute calculous cholecystitis. Relatively high cost of MRI and lack of widespread availability the MRI is prohibits its primary use in the patients with acute calculous cholecystitis The US are currently considered the preferred initial imaging technique for patients who are clinically suspected of having acute calculous cholecystitis.

S. No: 246

Title of the Collaborative activity: A morphometric study of human middle ear ossicles in cadaveric temporal bones of Indian population and a comparative analysis

Name of the collaborator: 1. David Victor Kumar-Department of Otorhinolaryngology and Head & Neck surgery, AIIMS, New Delhi, India, 2. D. Sridhar Reddy-Department of ENT-Osmania Medical College and Govt. ENT Hospital, Koti, Hyderabad, India

Name of the participants: Kumar, David Victor, I; Chaitanya, D. Krishna; Singh, Vishram; Reddy, D. Sridhar

Year of collaboration: 2018-19

Nature of the activity: Research

S. No: 246

A morphometric study of human middle ear ossicles in cadaveric temporal bones of Indian population and a comparative analysis

David Victor Kumar I [a], D. Krishna Chaitanya [b], Vishram Singh [c], D. Sridhar Reddy [d]

[a] Department of Otorhinolaryngology and Head & Neck surgery, AIIMS, New Delhi, India
[b] Department of Anatomy, Santosh Medical College, Santosh University, Delhi-NCR, Ghaziabad, India
[c] Department of Anatomy, Santosh Medical College, Santosh University, Delhi-NCR, Ghaziabad, India
[d] Department of ENT-Osmania Medical College and Govt. ENT Hospital, Koti, Hyderabad, India

Received 21 December 2017, Revised 17 January 2018, Accepted 22 January 2018, Available online 1 February 2018, Version of Record 1 June 2018.

https://doi.org/10.1016/j.jasi.2018.01.001

Abstract

Introduction

Malleus, Incus and Stapes are the three middle ear ossicles which form an articulated chain and help in conduction of sound from external ear to inner ear. Morphometric study of these ossicles has been going since the early 60s. Although the methods of been changing due to advent of newer technologies and treatments.

S. No: 247

Title of the Collaborative activity: Frequency of histopathological changes in gall bladder mucosa associated with gallstones

Name of the collaborator: 1. Surendra Pal Sharma-Department of Pathology, LLRM Medical College, Meerut, U. P., India, 2. NidhiVerma-Department of Pathology, LLRM Medical College, Meerut, U. P., India

Name of the participants: Singh, Vishram; Yadav, Arvind; Sharma, Surendra Pal; Verma, Nidhi

Year of collaboration: 2018-19

Nature of the activity: Research

S. No: 247

Frequency of histopathological changes in gall bladder mucosa associated with gallstones

Vishram Singh [a], Arvind Yadav [a], Surendra Pal Sharma [b], Nidhi Verma [b]

[a] Department of Anatomy, Santosh Medical College, Ghaziabad, Delhi-NCR, India
[b] Department of Pathology, LLRM Medical College, Meerut, U. P., India

Received 26 March 2018, Accepted 23 July 2018, Available online 30 July 2018, Version of Record 29 October 2018.

https://doi.org/10.1016/j.jasi.2018.07.002

Abstract

Introduction

Aim and objective is to study the histopathological changes in gall bladder mucosa associated with gallstones and find out the important facts associated with carcinoma of gallbladder. Compare and correlate the study findings with similar studies done in the past in different part of India.

Material and method

It is a cross-sectional hospital based study done in Santosh Medical College and Hospital Ghaziabad. The duration of this study is 2 years extending from January 2014 to January 2016. Study performed in total 131 open cholesistectomy specimens with complete gallstones. We included male and female patients of all the age group. Patient of gallstones diagnosed by radiology & recommended for cholecystectomy formed the study population. Autolysed cholecystectomy specimen & cholecystectomy specimen without

S. No: 248

Title of the Collaborative activity: Metacarpal lengths & ratios as a marker of sexual dimorphism in population of Haryana and Jammu & Kashmir. A radiological study

Name of the collaborator: 1. M.Kmattoo-Dept anatomy Sukhmani Dental College & Hospital Dera Bassi Punjab, India

Name of the participants: Vishram Singh, Kumar T., M.K M.

Year of collaboration: 2018-19

Nature of the activity: Research

S. No: 248

Metacarpal lengths & ratios as a marker of sexual dimorphism in population of Haryana and Jammu & Kashmir. A radiological study

Vishram Singh [a], Tarsem Kumar [b], M.K Mattoo [c]

[a] Dept. of Anatomy, Santosh Medical University Ghaziabad, NCR–Delhi, India
[b] Santosh Medical University, Ghaziabad, NCR-Delhi, India
[c] Dept anatomy Sukhmani Dental College & Hospital Dera Bassi Punjab, India

Received 9 May 2018, Accepted 23 July 2018, Available online 27 July 2018, Version of Record 29 October 2018.

https://doi.org/10.1016/j.jasi.2018.07.004

Abstract

Introduction

This study was designed to compare and detect possible differences between the metacarpal length (MCL) and all metacarpal length ratios in left - and right hands of female and male individuals of Haryanvi and J&K populations.

Materials and methods

Metacarpal lengths (MCL) of 143 subjects were measured after obtaining X-ray of both the hands, followed by calculating the ratio of each digit to the others (1MCL:2MCL, 1MCL:3MCL, 1MCL:4MCL, 1MCL:5MCL, 2MCL:3MCL, 2MCL:4MCL, 2MCL:5MCL, 3MCL:4MCL, 3MCL:5MCL, and 4MCL:5MCL).

S. No: 249

Title of the Collaborative activity: Morphometric analysis of lateral and third ventricles by computerized tomography for early diagnosis of hydrocephalus

Name of the collaborator: 1. Satbir Singh- G.B.Pant Institute of Postgraduate Medical Education and Research (GIPMER), New Delhi, India, 2. Dalvinder Singh- Jamia Millia Islamia, New Delhi, India

Name of the participants: Singh, Vishram; Singh, Satbir; Singh, Dalvinder; Patnaik, Poonam **Year of collaboration:** 2018-19

Nature of the activity: Research

S. No: 249

Morphometric analysis of lateral and third ventricles by computerized tomography for early diagnosis of hydrocephalus

Vishram Singh [a], Satbir Singh [b], Dalvinder Singh [c], Poonam Patnaik [a]

[a] Santosh Medical College & Hospital, Santosh University, Ghaziabad, Delhi-NCR, India
[b] G.B.Pant Institute of Postgraduate Medical Education and Research (GIPMER), New Delhi, India
[c] Jamia Millia Islamia, New Delhi, India

Received 7 October 2018, Accepted 5 November 2018, Available online 15 November 2018, Version of Record 6 December 2018.

https://doi.org/10.1016/j.jasi.2018.11.004

Abstract

Introduction

Brain ventricles are dilated with accumulation of excess cerebrospinal fluid in it, which can cause the pressure damage to the surrounding structures. This study aims to highlight the reference range values for lateral and third ventricles of brain for easy diagnosis and management of hydrocephalic patients.

Material and methods

We calculated the frontal horn ratio(FHR), bi- caudate ratio(BCR), Evan's ratio(ER), cella media ratio(CMR), bi-frontal index(BFI), bi- occipital index(BOI), third ventricle width(TVW), third ventricle sylvian fissure ratio index (TSFI), and third ventricle ratio

S. No: 250

Title of the Collaborative activity: Morphometric study of Intratemporal course of facial nerve in relation to pneumatization of temporal bone—An original study

Name of the collaborator: 1. David Victor Kumar-Department of Otorhinolaryngology, AIIMS, New Delhi, India, 2. B.K.S.Chauhan-Department of Radiology, Santosh Medical College & Hospital, Santosh University, Ghaziabad, Delhi-NCR, India

Name of the participants: Singh V, Chaitanya Reddy D.K, Kumar I. D.V, Chauhan B.K.S., Reddy S.

Year of collaboration: 2018-19

Nature of the activity: Research

S. No: 250

Morphometric study of Intratemporal course of facial nerve in relation to pneumatization of temporal bone—An original study

Vishram Singh [a], D. Krishna Chaitanya Reddy [a], David Victor Kumar I. [b], B.K.S. Chauhan [c], Sridhar Reddy [d]

Show more

https://doi.org/10.1016/j.jasi.2018.03.002

Abstract

Introduction

Facial nerve (C.N VII) is the nerve of facial expression and communication. The intratemporal part of this nerve comprising tympanic and mastoid segments, is very vulnerable to injury during ear surgeries. Hence to safely navigate around this part of the nerve one has to be very familiar with 3D anatomy of the temporal bone and crucial landmarks present in relation to the nerve. Aim of this study is to know the exact morphometry of Intratemporal part of the facial nerve in relation to Pneumatization of temporal bone.

Material and methods

The present study was carried out on 54 cadaveric temporal bones obtained from the department of anatomy, Santosh Medical College, Santosh University, Delhi-NCR. With the pneumatization determined by computerized tomography (CT), the dissection was performed by standard techniques of '*canal wall up*' mastoidectomy and '*canal wall down*' mastoidectomy. Temporal bones have been classified into 3 groups: Group I-Well Pneumatised bones, Group II- Mixed type of Pneumatised bones and Group III- Sclerosed bones. The mean, standard deviation (S.D), maximum and minimum values were calculated in all the groups for the lengths of the facial nerve.

S. No: 251

Title of the Collaborative activity: Spinal canal diameter in degenerative lumbar spinal stenosis

Name of the collaborator: 1. R.Sethi-Department of Anatomy, Heritage Institute of Medical Sciences, Varanasi, UP, India

Name of the participants: Sethi R., Singh V.

Year of collaboration: 2018-19

Nature of the activity: Research

S. No: 251

Spinal canal diameter in degenerative lumbar spinal stenosis

R. Sethi [a], V. Singh [b]

Show more

https://doi.org/10.1016/j.jasi.2018.07.005

Abstract

Introduction

Lumbar spinal stenosis (LSS) is defined as reduced spinal canal diameter either due to osseous changes in the bony components of a vertebra or due to changes in the associated soft tissue structures. The purpose of the study was to determine changes in vertebral body morphometry and diameters of osseous lumbar spinal canal with age to categorize it as degenerative spinal stenosis.

Materials and methods

A pre-defined low back pain questionnaire, clinical signs and symptoms were used to select individuals within age range of 20–80 years. The selected individuals were grouped into two categories of Asymptomatic (Group I) and Symptomatic (Group II) and taken up for MRI scan of lumbar spine. Group I included 57 healthy subjects with no degenerative findings of lumbar spine and Group II had 43 patients with positive evidences of degeneration at lower lumbar levels. Each group was further subdivided into young (20–39yrs), middle (40–59yrs) and old (60–80yrs) age subgroups. Vertebral canal diameters and vertebral body morphometry were compared within and between the groups. Relationship of observed parameters with age was analysed using SPSS analysis tool.

S. No: 252

Title of the Collaborative activity: Antimicrobial Activity of Antibiotics and Antiseptics (Dettol and Betadine) against Clinical Isolates of Pseudomonas aeruginosa.

Name of the collaborator: 1. Poonam Verma-1Department of Microbiology and Microbial Technology, Allahabad Agricultural Institute-Deemed University, Allahabad, India

Name of the participants: Poonam Verma, Manish Kumar Verma, Jagmohan Singh Dhakar

Year of collaboration: 2018-19

Nature of the activity: Research

S. No: 252

RESEARCH ARTICLE

Antimicrobial activity of Antibiotics and Antiseptics (Dettol and Betadine) against Clinical Isolates of *Pseudomonas aeruginosa*

Poonam Verma[1]*, Manish Kumar Verma[2], Jagmohan Singh Dhakar[3]

[1]Department of Microbiology and Microbial Technology, Allahabad Agricultural Institute- Deemed University, Allahabad, India

[2]Department of Lab Medicine, Allahabad Agricultural Institute- Deemed University, Allahabad, India

[3]Department of Community Medicine, Santosh Medical College, Ghaziabad, India

*Address for Correspondence: Poonam Verma, Department of Microbiology and Microbial Technology, Allahabad Agricultural Institute-Deemed University, Allahabad, U.P, India

Received: 12 Oct 2017/Revised: 15 Nov 2017/Accepted: 22 Dec 2017

ABSTRACT- Hundred samples viz. urine, blood, wound, pus and sputum collected from different patients were found to harbour *Pseudomonas aeruginosa* (*P. aeruginosa*) (27%) with a maximum isolation from wound samples (33.33%) and minimum from blood samples (11.11%). The degree of resistance of *P. aeruginosa* isolates to different antibiotics like Ceftazidime (30 µg), Amikacin (30 µg), Imipenem (10 µg), Ciprofloxacin (30 µg), Tetracycline (30 µg), Gentamicin (10 µg), Norfloxacin (10 µg), Penicillin (30 µg), Chloramphenicol (30 µg), and Ofloxacin (5 µg) varied from 56% to 100%. Antiseptics i.e. Betadine and Dettol were found to be more effective against the MDR strain of *P. aeruginosa* at the dilutions of 10^{-1} and 10^{-2}. Duration of the disease and hospitalization duration, evaluated as risk factors for *P. aeruginosa* colonization were found to be statistically significant while age and gender were found to be statistically non-significant. The incidence of multidrug resistance of *P. aeruginosa* is increasing fast due to the frequent use of antibiotics and antiseptics, which are used extensively in hospitals and healthcare centers, therefore it is a need to develop alternative antimicrobial agents for the treatment of infectious diseases.

Key-words- Antibiotic, Antiseptic, Betadine and Dettol, Disinfectants, *P. aeruginosa*

INTRODUCTION

Pseudomonas aeruginosa is one of the leading causes of nosocomial infections, reported worldwide. The gram negative, rod shaped bacterium (0.5-0.8 µm and 1.5-3 µm in size) is ubiquitous with normal nutritional requirement and has emerged as the epitome of opportunistic pathogen of humans. There is hardly any tissue that it cannot infect, if the tissue defenses are compromised in some manner [1]. *P. aeruginosa* is commonly encountered in health-associated infections. Multiple surveillance programs have reported the organism as one of the leading causes of nosocomial infection. [2-4]

According to Center for Disease Control (CDC), incidence of *P. aeruginosa* infections in U.S. hospitals averages about 0.4% (4 per 1000 discharges) and the bacterium is the fourth most commonly isolated nosocomial pathogen accounting for 10.1% of all hospital acquired infections [1].

Access this article online	
Quick Response Code	Website: www.ijlssr.com
	DOI: 10.21276/ijlssr.2018.4.1.14

Within the hospital, *P. aeruginosa* finds abundant reservoirs, such as disinfectants, respiratory equipment, food, sinks, taps, toilets, showers and mops. It is constantly reintroduced into the hospital environment on fruit-plants, vegetables as well as by visitors and patients transferred from other facilities. Spread occurs from patients, on the hands of hospital personnel, by direct patient get in touch with contaminated reservoirs, and by the ingestion of contaminated foods and water [1].

Urinary Tract Infections (UTI) is a main hazard to human health. It is caused due to the various physiological changes of the urinary tract by the action of microbes [5]. Urinary Tract infections has also been a most important type of hospital acquired infection (HAI) [5]. Hospital acquired infections are of various types: UTI, Surgical Site Infection (SSI) Blood Stream Infection (BSI), and Respiratory Tract Infection (RTI), and the most common are Respiratory Tract (20-22%), and Urinary Tract (39%) infection [5].

It causes urinary tract infections, respiratory system infections, dermatitis, soft tissue infections, bacteremia, bone and joint-infections, gastrointestinal infections and a variety of systemic infections. Particularly in the patients with severe burns, cancer and AIDS, who are immune-suppressed, *P. aeruginosa* infection is a serious problem among them. The case fatality rate in these patients is nearly 50% [1]. Most *Pseudomonas* infections

SANTOSH

Deemed to be University