<table>
<thead>
<tr>
<th>Sl No</th>
<th>Name of the Journal, Volume Issue, Period</th>
<th>Name of the author</th>
<th>Title of the Article</th>
<th>Abstract</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Med Pulse International Journal of Biochemistry, Print ISSN: 2550-763X, Online ISSN: 2636-4573, Volume 6, Issue 3, June 2018 pp 27-30</td>
<td>Basavaraj Savadi1, Biochemistry</td>
<td>Duration of type 2 diabetes mellitus as a threat indicator for the microalbuminuria; A signal for diabetic nephropathy</td>
<td><strong>Background:</strong> Diabetes mellitus is one of the major health problems leading to the long term kidney damage and responsible for 30-40% of all chronic kidney diseases. <strong>Aim and Objectives:</strong> The study was conducted to find the association of microalbuminuria in relation to the duration of diabetes mellitus and HbA1c in a randomly selected type 2 diabetic patients. <strong>Material and Methods:</strong> The study was done from December 2012 to November 2013 in Raichur Institute of Medical Sciences, Karnataka. We have taken hundred type 2 diabetic cases based on history, clinical examination and related investigations. <strong>Result:</strong> Microalbuminuria contains a extremely significant correlation with the duration of diabetes mellitus (r = 0.81, p&lt; 0.001) and HbA1c level (p = 0.001, r = 0.574). <strong>Conclusion:</strong> Relationship between microalbuminuria and the duration of diabetes mellitus shows more significant correlation compared to microalbuminuria and HbA1c level. The study has put light on the long term vulnerability of the high blood glucose as a risk for the accumulation of advanced glycosylation of end products which contribute the pathology to develop microalbuminuria than the HbA1c level alone. The present study emphasizes the need of regular screening for microalbuminuria and HbA1c, and can act as a risk indicator of diabetic nephropathy and early intervention to prevent complications.</td>
</tr>
<tr>
<td>2</td>
<td>National Journal of Basic Medical Sciences</td>
<td>Basavaraj v Savadi, Biochemistry</td>
<td>Correlation Between Erythrocyte Malondialdehyde Levels and Dyslipidemia in Patients with Type 2 Diabetes Mellitus.,</td>
<td><strong>Introduction:</strong> Dyslipidemia is the most common metabolic derangement of diabetes mellitus and is responsible for complications. Long term exposure to high glucose and fatty acid levels can damage the cells by process of oxidative stress. The oxidative stress in (DM) is also aggravated by impairment of the oxidant and antioxidant balance which leads to generation of excess free radicals. These induce membrane lipid peroxidation and generate lipid peroxides, which in turn disintegrates quickly to form reactive carbon compounds. Malondialdehyde (MDA) is such an important reactive carbon compound which is used commonly as an indicator of lipid peroxidation, and it has become an important oxidative stress marker. Majority of previous studies used serum MDA for assessing oxidative stress, but it is less reliable compared to erythrocyte MDA, as they are known to be prone for more oxidative reactions. <strong>Aim and Objectives:</strong> The present study was taken to up to evaluate erythrocyte MDA levels among type 2 diabetic patients as compared to controls and to investigate correlation of erythrocyte MDA levels with lipid profile parameters in type 2 diabetic patients. <strong>Materials and methods:</strong> Study included 60 type 2 diabetic patients and 60 healthy controls. Erythrocyte MDA levels and lipid profile parameters was analyzed among the patients and healthy controls by standard laboratory methods. <strong>Results:</strong> Serum MDA levels and erythrocyte MDA levels were very significantly higher in type 2 diabetics as compared to controls (p&lt;0.001). Also, significant positive correlation was obtained between erythrocyte MDA levels and lipid profile parameters other than HDL. Instead, HDL cholesterol exhibited a significant negative correlation (p &lt;0.001). <strong>Conclusion:</strong> Based on our study results, it was concluded that poor glycemic control and dyslipidemia in type 2 diabetes mellitus are associated with increased erythrocyte MDA, which is an early marker of lipid peroxidation. This erythrocyte MDA can be used as a potential prognostic marker in prediction of oxidative stress. It has more value when used in diabetic patients with complications, which helps in identifying onset of complications early, thereby improving the quality of life and reducing disease progression. <strong>Keywords:</strong> Erythrocyte malondialdehyde, Lipid profile, Type 2 diabetes, Oxidative stress, Lipid peroxidation</td>
</tr>
</tbody>
</table>
Introduction: Adiponectin is an adipocyte protein produced by adipose tissue. It has insulin sensitizing effects, potential anti-inflammatory and anti-atherogenic properties. Adiponectin is known to play a protective role on kidneys by preventing albuminuria. A lower concentration of adiponectin is noted, in conditions of resistance to insulin, diabetes mellitus, and CKD. But among the CKD micro and macro albuminuric diabetic nephropathy patients have increased adiponectin levels. Hence there is an ambiguity concerning albuminuria in diabetes mellitus and increased levels of adiponectin. In this background, the present study was taken to investigate correlation of serum adiponectin levels with degrees of albuminuria in type 2 diabetic patients. **Materials and Methods:** Study included 60 diabetic patients and they were classified into three groups based on the degree of albuminuria. The levels of serum adiponectin and albuminuria was analyzed among the groups and healthy controls. **Results:** The levels of serum adiponectin and albuminuria was analysed among the groups and healthy controls. A statistically significant difference was found between type 2 diabetic patients as compared to healthy controls (p <0.001). And it was significantly higher in type 2 diabetes patients with microalbuminuria when compared to healthy controls (p <0.001, ANOVA). **Conclusion:** It concluded that among the diabetic nephropathy patients, serum levels of adiponectin are increasing with the progression of renal failure as well as the levels of albuminuria. Since, hypoadiponectinemia is associated with inflammation, atherogenic properties and insulin resistance, adiponectin is secreted more likely so as to alleviate their detrimental effects in diabetic nephropathy patients. **Keywords:** Adiponectin, Albuminuria, Chronic kidney disease, Diabetic nephropathy.

**Abstract**

Diabetes mellitus is an iceberg of disease resulting due to impairments in insulin secretion, insulin action or both. Hyperglycemia caused due to the above defects leads to complications like neuropathy, nephropathy, retinopathy, peripheral vascular disease and coronary artery disease as a result of stimuli for oxidative stress on cell-membrane. The aim of the study is to establish a relation between the stress induced by oxidants bringing changes with the erythrocyte membrane. The protein content, protein thiols, protein carbonyl levels in relation to control of type 2 DM based on HbA1C level indicates that there is an auto-oxidation of glucose which results in persistent production of thiols and carbonyl leading to protein damage, modification due to amino acid residues, fragmentation of amino acid stress and raised proteolytic susceptibility. Protein thiols and carbonyl are the results of oxidation of amino acid which is non-specific or by specific amino acid oxidation.

A case control comparative study was done with type 2 DM and normal control at BMCH & RC, Chitradurga. The maximum number were of the age group of 41-45 i.e. 32%. The mean FBS level’s among cases and controls 197.50 mg/dl and 93.48 mg/dl respectively. There was significant difference between levels of protein content (4.56±0.19), protein carbonyl (1.20±0.08) and protein thiol levels (1.42±0.10) among diabetics in comparison to protein content (5.40±0.31), protein carbonyl (0.90±0.06), and protein thiols (2.12±0.12) in controls. It was found that there was significant increase of protein carbonyl, decrease protein content and decrease in protein thiols in diabetic patients. **Keywords:** Diabetes mellitus, Oxidative stress, Reactive oxygen species, Protein content, Protein carbonyl, Protein thiols.

**Abstract**

Diabetes mellitus is a chronic endocrine disorder associated with a multitude of microvascular and macrovascular complications. The imbalance between the productions of free radicals plays a prominent role in the development of these complications. Different markers of oxidative stress on erythrocyte membrane like Malondialdehyde (MDA), Protein carbonyl, Protein thiols and protein content of the membrane show variations which can be estimated to know the effect of oxidative stress. Similar effect is seen on erythrocyte membranes when these are subjected to prooxidants like Ascorbic acid with Iron or Copper in Vitro. In our study the effect of oxidative stress on RBC membrane in diabetes was estimated and the same was validated by subjecting Erythrocyte membrane of controls to oxidative stress in vitro by using Ascorbic acid with Iron.

A case control comparative study was done with type 2 DM patient blood samples and normal controls at BMCH & RC, Chitradurga. The maximum number were of the age group of 41-45 i.e. 32%. The mean FBS levels among cases and controls 197.50 mg/dl and 93.48 mg/dl respectively. There was similarity in the results between levels of protein content (4.56±0.19), protein carbonyl (1.20±0.08), protein thiol levels (1.42±0.10) and MDA (4.23±0.21) among diabetes in comparison to protein content (4.28±0.14), protein carbonyl (1.39±0.097), protein thiols (1.04±0.05) and MDA (4.75±0.81) in controls treated with Iron Ascorbate a pro-oxidant mixture. **Keywords:** Diabetes mellitus, Reactive oxygen species, Protein content, Protein carbonyl, Protein thiols, Iron ascorbate.
Cervical cancer is the most common gynaecological cancer in developing countries. Pap smear is a simple and cost-effective screening tool in the detection, assessment of Estrogen Receptors (ER)/Progesterone receptors (PR) and HER2/neu expression in breast cancer is mandatory in clinical practice. Immunohistochemistry (IHC) for assessing hormone receptor status is easier, safer, and has better ability to predict response to adjuvant endocrine therapy. HER2/neu overexpression is shown to have important prognostic and predictive value. The best approach to the use of immunohistochemical markers is to couple them with standard Haematoxylin & Eosin (H&E) based histology and to use ER, PR & HER2/neu status to correlate with histological grade and other clinicopathological parameters. Materials and methods: Fifty cases of breast cancer were taken for the study. H&E sections diagnosed as carcinoma were assessed for histological type and grade. One dedicated block from tumour, not fixed for more than 24 hours in 10% formalin was used for ER/PR and HER2/neu receptor evaluation by IHC. Statistical analysis was done with SPSS software, using chisquare test. Results: A total of 50 carcinoma breast cases were subjected to IHC. Twenty-four cases (48.0%) were of histologic grade II, 17 cases (34%) of grade III and nine cases (18%) were of grade I. ER, PR and HER2/neu status correlated significantly with histological grade. Conclusion: ER, PR & HER2/neu status correlates well with histopathological grading. Hence, immunohistochemical analysis should be incorporated in the routine histopathology reports and can be of great value in deciding the treatment protocols. Keywords: Breast Carcinoma; Immunohistochemistry; Er; Pr; Her2/Neu; Histopathological Grading.

Pap smear as early diagnostic tool for cervical cancer- A life saviour

Background: Cervical cancer is a leading cause of mortality and morbidity among women globally and most common gynaecological cancer in developing countries. Papanicolaou smear study is a simple and cost-effective screening test for cervical cancer. The aim of this study is to evaluate and interpret the pattern of cervical Pap smear cytology in a tertiary hospital. The interpretation and reporting of the Pap smear is based on 2001 Bethesda system. Materials and Methods: This is a retrospective study conducted at Department of Pathology, Basaveshwara Medical College, Hospital and Research Centre, Chitradurga, Karnataka, India. The study was conducted over a period of two years from June 2015 to May 2017. All pap smears received in the department of Pathology during study period were included. Results: A total of 2210 pap smears were reported in the study period. Majority of the cases were inflammatory smears (35.88%) and negative for intraepithelial lesion or malignancy (49.86%). Candidiasis, Bacterial vaginosis, Trichomonas vaginalis, atrophy and reactive cellular changes associated with inflammation were seen in 0.49%, 0.72%, 0.36%, 8.91% and 0.4% cases respectively. 0.31% Vault smears were studied. Epithelial cell abnormalities (1.4%) include atypical squamous cells of undetermined significance (0.4%), low grade squamous intraepithelial lesion (0.63%) and high grade intraepithelial lesion (0.31%). 88% of low grade squamous intraepithelial lesion was seen in reproductive age group (18-50 years). Conclusion: Cervical cancer is the most common gynaecological cancer in the developing countries. Pap smear is the simple, easy and cost-effective screening tool to detect premalignant and malignant cervical lesions, and reduce the mortality due to cervical cancer by early diagnosis and treatment. Keywords: Bethesda system, Pap smear, Cervical precancerous lesions, I.S.I.L, H.S.I.L, ASCUS, Cervical cancer.

Comparative evaluation of drug susceptibility testing of Mycobacterium tuberculosis by Nitrate reductase assay on direct sputum samples and Conventional proportion method

Background and Objectives: The routinely used methods for anti-tubercular drug susceptibility testing are either costly or slow. As the prevalence of multidrug-resistant strains is increasing, the need for fast, reliable, and inexpensive methods that can be applied in settings with limited resources is essential. Methods: It was a study of 100 sputum samples from smear positive patients at RNTCP centre. The samples were subjected to anti-tubercular drug susceptibility by Nitrate reductase assay on direct sputum samples and the routine indirect Conventional proportion method for two primary anti-tubercular drugs, i.e., Isoniazid and Rifampicin. Results: Out of 100 samples, 94 were sensitive to Isoniazid and Rifampicin by both Conventional Proportion Method, and Nitrate Reductase Assay. Four isolates were detected as MDR-TB strains (resistant to both Isoniazid and Rifampicin) and two were resistant only to Isoniazid by both the methods. Conclusion: Drug susceptibility detected by Nitrate Reductase Assay has excellent agreement with the gold standard Conventional proportion method for Mycobacterium tuberculosis in our study. Hence in countries like India, where there is burden of tuberculosis cases and especially of drug resistant cases, NRA is a very valuable tool in the detection, treatment and follow-up of tuberculosis cases for drug resistance. Keywords: Tuberculosis (TB), Multi drug resistant tuberculosis (MDR-TB), Nitrate reductase assay (NRA), Conventional Proportion Method (CPM).

**Dr. Sumanta A**

**Modified slide culture method for drug susceptibility testing for Mycobacterium tuberculosis**

**Introduction:** Current methods for drug susceptibility testing of Mycobacterium tuberculosis are either costly or slow. As the prevalence of multidrug-resistant strains increases, the need for fast, reliable, and inexpensive methods that can also be applied in settings with scarce resources is obvious. **Aim:** To determine the prevalence of multi drug resistant tuberculosis by a simple, rapid and cost effective technique. **Materials and Method:** 100 sputum samples from sputum smear positive patients at RNTCP centre were taken and subjected to drug susceptibility testing for all the first line anti tubercular drugs by modified slide culture method. Samples were also subjected to conventional culture on LJ media. **Results:** From the 100 smear positive sputum samples, culture of M. tuberculosis was obtained by both LJ medium and modified slide culture for all the samples. Out of the 100 samples, 94 were sensitive for all the drugs, 04 were found to be multidrug resistant and 02 resistant only to isoniazid. **Conclusions:** The modified slide culture technique was found to be a safe, rapid and cost effective technique and can used for drug susceptibility testing especially in resource limited settings. **Keywords:** Mycobacterium tuberculosis, Sputum sample, LJ media, Modified slide culture, Multi drug resistant

---

**International Journal of Current Microbiology and Applied Sciences ISSN: 2319-7706 Volume 7 Number 05 (2018)**

**Jagadevi1, B**

**Significance of C - Reactive Protein and Routine Analysis of Cerebrospinal Fluid in Children with Meningitis,**

A 2-year prospective study was carried out on 110 children with clinical suspicion of meningitis where C-reactive protein (CRP) determination and routine cytochemical and microbiological analysis of Cerebrospinal fluid (CSF) were done for all patients. The patients were divided into four groups: Pyogenic meningitis (PM), viral meningitis (VM), tubercular meningitis (TBM) and control groups. Among 110 cases of suspected meningitis, there were 62(56.36%) cases of meningitis, out of which 21 (19.09%) were PM, 35(31.81%) were VM, 06 (5.45%) were TBM and the remaining 48 (43.63%) were controls. Out of 21 cases of PM, CSF culture was positive in 9 (42.85%), Latex agglutination test detected antigen in 14 (66.66%) and Gram staining showed organisms in 13 (61.90%). S.pneumoniae was the leading pathogen of PM, CSF LAT detected 6/21(28.57%) and CSF culture isolated 3/21(14.28%) S. pneumoniae. The mean value of CSF CRP were 15.167±4.925 in PM, 3.667±1.779 in TBM, and 2.557±0.998 in VM. Statistically highly significant value (p < 0.001) was observed when the mean of PM compared with other two groups. Quantitative estimation of CSF CRP is an easy and reliable, screening tool can be used for diagnosis of PM and to rule out VM or TBM in cases of uncertain diagnosis with high level of sensitivity and specificity. **Keywords** Meningitis, C-reactive protein, Cerebrospinal fluid, Children

---

**International Journal of Current Microbiology and Applied Sciences ISSN: 2319-7706 Volume 7 Number 05 (2018)**

**Jagadevi, B.**

**Clinical Importance of Emerging ESKAPE Pathogens and Antimicrobial Susceptibility Profile from a Tertiary Care Centre**

Bacterial species from the ESKAPE group (Enterococcus faecium, Staphylococcus aureus, Klebsiella pneumoniae, Acinetobacter baumannii, Pseudomonas aeruginosa and Enterobacter species) have high resistance rates by escaping the action of the antimicrobials and are responsible for two third of all health care associated infections. Aim of our study was to find out the bacterial profile and characterize the antimicrobial resistance in ESKAPE pathogens isolated from various specimens. A three year retrospective study was undertaken. Urine samples, pus/wound swabs, respiratory samples, blood samples received in the microbiology laboratory were included &processed as per standard techniques and bacteria identified. Antibiotic susceptibility was determined according to Clinical & Laboratory Standards Institute (CLSI) guidelines. 41.5% of S. aureus isolates were confirmed to be methicillin resistant and 5.9% vancomycin resistant enterococci (VRE) were identified. A high multidrug resistance was observed for Acinetobacter and P. aeruginosa than Enterobacteriaceae. For carbapenem group, resistance varied from 8 to 27%. Resistance to amikacin and netilmicyn was lower (4-11%) for gram negative ESKAPE pathogens. Antimicrobial resistance surveillance reports on regular basis can provide valuable insight into resistance trends at a particular medical facility to assist in guidance in the appropriate choice of empiric therapy in diseases due to ESKAPE pathogens.
Evaluation of Helicobacter pylori stool antigen test in comparison with conventional methods in detection of helicobacter pylori infection in dyspepsia patients

**Background:** Helicobacter pylori colonize the human stomach and is associated with gastritis, gastric and duodenal ulcers, gastric adenocarcinoma and mucosa associated lymphoid tissue lymphoma. Owing to its momentous pathogenic role, the diagnosis of H pylori infection remains a subject of interest. Helicobacter can be detected by invasive and non invasive methods. **Aim:** The purpose of this study was to evaluate the accuracy of stool antigen test as a non invasive method for the diagnosis of H pylori infection. **Materials and Method:** A prospective study was conducted in a tertiary medical college hospital. Patients presenting with dyspeptic symptoms were subjected to endoscopy and investigated for H pylori infection through rapid urease test, histopathology and culture. Stool samples were also collected from these patients and tested for H pylori infection by a rapid HpHylori Stool Antigen test. H pylori status was defined as positive when both rapid urease test (RUT) and histopathology were positive or culture alone was positive for biopsy based invasive methods. Similarly a positive rapid HpSA test also indicates H pylori infection. **Results:** Of the 100 patients tested, 63 were H pylori infected by the endoscopy based invasive methods, and 54 by the non-invasive rapid HpSA test. The sensitivity, specificity and accuracy of H pylori stool antigen test were 85.7%, 88% and 91% respectively. **Conclusion:** The rapid HpSA test could be used as a noninvasive diagnostic test for H pylori infection.

**Keywords:** H pylori infection, Helicobacter pylori stool antigen test (HpSA), Rapid urease test (RUT).

Evaluation of GeneXpert MTB/RIF assay in diagnosis of extrapulmonary tuberculosis and rifampicin resistance

**Background:** The prevalence of tuberculosis is still on the rise particularly extrapulmonary cases. There is an urgent need for rapid diagnosis of these cases for prompt initiation of treatment. **Aim:** To evaluate the role of GeneXpert MTB/RIF Assay in the diagnosis of clinically suspected extrapulmonary tuberculosis (EPTB) and to detect rifampicin resistance in these cases. **Materials and methods:** A total of 241 samples from April 2016 to July 2018, from all clinically suspected EPTB patients with support of either laboratory or radiological evidence were included in study. 132 pleural fluid, 59 lymph node aspirate, 21 CSF, 17 pus, 9 ascitic fluid and 3 synovial fluid samples were screened for presence of acid fast bacilli (AFB) by conventional Ziehl-Neelsen (ZN) technique. The same samples were also used for testing by GeneXpert MTB/RIF Assay. **Results:** Out of 241 EPTB samples tested, none were positive for AFB by ZN staining. Overall 9.54% (23 out of 241) samples were positive for MTB by GeneXpert with a positivity rate of 23.80%, 13.55%, 11.76% & 6.06% respectively for CSF, lymph node aspirate, pus and pleural fluid. MTB was not detected in any of ascitic fluid & synovial fluid samples. Of the 23 MTB positive samples detected by GeneXpert, all were sensitive to rifampicin. **Conclusions:** GeneXpert was found to be simple, effective and useful diagnostic method for detection of EPTB due to its rapidity & simultaneous detection of rifampicin resistance, thus reducing the time taken for initiation of treatment.

**Key words:** Extrapulmonary tuberculosis (EPTB), Mycobacterium tuberculosis (MTB), GeneXpert MTB/RIF (GeneXpert), Rifampicin (RIF) resistance,
<table>
<thead>
<tr>
<th>Sl No</th>
<th>Name of the Journal, Volume Issue, Period</th>
<th>Name of the author / articles (S)</th>
<th>Title of the Article</th>
<th>Abstract</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>International Journal of Advances in Medicine Vijeth SB et al. Int J Adv Med. 2018 Aug;5(4):974-977 <a href="http://www.ijmedicine.com">http://www.ijmedicine.com</a> pISSN 2349-3925</td>
<td>Vijeth S. B.,</td>
<td>Effect of Carica papaya leaf extract (CPLE) on thrombocytopenia among dengue patients of tertiary care hospital, Chitradurga, India</td>
<td>Background: Dengue is a global public health problem and thrombocytopenia associated with it is a serious complication for which there is no specific treatment available. This study was done to assess the effect of Carica papaya Leaf Extract (CPLE) on thrombocytopenia associated with Dengue and to study other clinical parameters of dengue. Methods: A longitudinal study conducted in Department of General Medicine, BMCH, Chitrardurga, from September 2017 to March 2018. All the participants were randomized into two groups by simple randomization by lot method. Study group was given Carica papaya Leaf Extract (CPLE) and routine supportive treatment for other group. The patients were followed from the day of admission till their discharge from hospital. The platelet counts and other baseline hematological investigations, duration of hospital stay in both the groups were compared statistically by unpaired t-test. Results: There were total 127 males and 73 females. Age groups were comparable in both the groups. Most common presenting complaints were fever (100%) followed by headache (85%), myalgia (81.4%), fatigue (75%), arthralgia (65%). On admission baseline investigations were done and mean levels of both groups were compared. It was found that there was only significant difference of mean RBC levels (p=0.045). When followed up with daily platelet counts of both the groups, it was seen that there was increase in platelet counts in study group compared to placebo group and on third day there was significant difference between both (p=0.002). It was also found that discharge rate is earlier in study group than placebo group. Conclusions: Carica papaya leaf extract accelerates the increase in platelet count and reduces the hospital stay. So, it can be used as supplementary drug to reduce complications. Keywords: Carica papaya, Dengue fever, Complications, Thrombocytopenia</td>
</tr>
<tr>
<td>15</td>
<td>International Journal of Advances in Medicine Vijeth SB et al. Int J Adv Med. 2018 Oct;5(5):1280-1283 <a href="http://www.ijmedicine.com">http://www.ijmedicine.com</a> pISSN 2349-3925</td>
<td>Vijeth S. B.,</td>
<td>Prevalence of obesity and it’s associated risk factors among policemen of Chitrardurga district, Karnataka, India</td>
<td>Background: Obesity is an increasingly prevalent disease worldwide and can be regarded as a health problem among individuals of different occupations, including policemen, who are responsible for public security. Working throughout the day in stressful atmosphere produces adverse physical and psychological effects. We conducted this study to find the prevalence of obesity among policemen, if any, and to identify the associated risk factors for obesity in this population. Methods: Cross sectional study was conducted among 410 police personnel of 4 talukas of Chitrardurga District, Karnataka from July 2017 to January 2018. Semi-structured questionnaire was prepared to collect the data, which consist of socio-demographic data, clinical examination findings, anthropometric measurements and biochemical investigations. At the end whoever had high risk factors, were treated for the same along with advice on healthy life style. Data entered in Microsoft Excel 2007 and analysed using SPSS software, version 20. Frequency tables, ANOVA test and chi-square test were used for analysis and interpretation. Results: There were total 392 males and 18 females. Age group was ranging from 21 years to 59 years. 201(49%) of the police officers were overweight and 45(11%) were obese. Ideal weight police men were younger than obese policemen and weighed less than obese police. There was statistical difference in BMI between the three groups of policemen. The mean TG and TC levels among overweight and obese were higher than ideal weight policemen and this difference was statistically significant. 32.9% of participants had a high TC level (&gt;200 mg/100 ml). Moreover, 93.4% and 84.1% had a low level of HDL-C and high level of LDL-C, respectively (&lt;40 mg/ 100 ml and &gt;150 mg/100 ml, respectively). 49.5% of our study participants had TG levels &gt;150mg/100 ml. 60.5% and 42.7% had high SBP and DBP, respectively (&gt;130 mmHg and &gt;90mmHg). The difference between TC and HDL between different BMI groups was statistically significant. Conclusions: Obesity and hypertension are high risk factors for development of cardiovascular diseases. Early detection of the same and effective implementation of a physical fitness program, a regular balanced diet, inoculation training for managing stress can improve the life of police personnel. Keywords: Obesity, Overweight, Policemen, Risk factors</td>
</tr>
</tbody>
</table>
Vijeth S. B., A cross sectional study to assess the prevalence of microalbuminuria in patients with type 2 diabetes mellitus,

Background: Microalbuminuria is an earliest marker of overt diabetic nephropathy, hence monitoring microalbuminuria in patients with diabetes mellitus helps to predict and prevent overt diabetic nephropathy. This cross-sectional study was done to find out the prevalence of microalbuminuria in 200 patients with diabetes mellitus attending medicine OPD of Basaweshwara medical college hospital (BMCH), Chitradurga.

Methods: 200 patients with Diabetes mellitus visiting the medicine OPD of BMCH, Chitradurga were considered for the study. Patients history and physical examination findings like duration of diabetes, hypertension, smoking and BMI were considered. Relevant blood investigations like fasting blood sugar, glycated haemoglobin (HbA1c), serum cholesterol and creatinine were done. Microalbuminuria was assessed using dipstick kits in an early morning urine samples.

Results: The prevalence of normoalbuminuria was 71% and microalbuminuria was 29%. The prevalence of microalbuminuria increased with the increase in duration of diabetes.

Conclusions: Prevalence of microalbuminuria among the patients with diabetes depends upon risk factors like blood pressure control, duration of diabetes, fasting blood sugar and HbA1c. Early identification of high risk patients and the subsequent initiation of renal and cardiovascular protective agents helps to reduce the burden of diabetic kidney disease.

Keywords: Diabetes mellitus, Diabetic nephropathy, HbA1c, Microalbuminuria

Ghouse Pasha., Prevalence of obesity and it’s associated risk factors among policemen of Chitradurga district, Karnataka, India

Background: Obesity is an increasingly prevalent disease worldwide and can be regarded as a health problem among individuals of different occupations, including policemen, who are responsible for public security. Working throughout the day in stressful atmosphere produces adverse physical and psychological effects. We conducted this study to find the prevalence of obesity among policemen, if any, and to identify the associated risk factors for obesity in this population.

Methods: Cross sectional study was conducted among 410 police personnel of 4 talukas of Chitradurga District, Karnataka from July 2017 to January 2018. Semi-structured questionnaire was prepared to collect the data, which consist of socio-demographic data, clinical examination findings, anthropometric measurements and biochemical investigations. At the end whoever had high risk factors, were treated for the same along with advice on healthy lifestyle. Data entered in Microsoft Excel 2007 and analysed using SPSS software, version 20. Frequency tables, ANOVA test and chi-square test were used for analysis and interpretation.

Results: There were total 392 males and 18 females. Age group was ranging from 21 years to 59 years. 201(49%) of the police officers were overweight and 45(11%) were obese. Ideal weight police men were younger than obese policemen and weighed less than obese police. There was statistical difference in BMI between the three groups of policemen. The mean TG and TC levels among overweight and obese were higher than ideal weight policemen and this difference was statistically significant. 32.9% of participants had a high TC level (≥200 mg/100 ml). Moreover, 93.4% and 84.1% had a low level of HDL-C and high level of LDL-C, respectively (<40 mg/ 100 ml and >150 mg/100 ml, respectively). 49.5% of our study participants had TG levels >150mg/100 ml. 60.5% and 42.7% had high SBP and DBP, respectively (>130 mmHg and >90mmHg). The difference between TC and HDL between different BMI groups was statistically significant.

Conclusions: Obesity and hypertension are high risk factors for development of cardiovascular diseases. Early detection of the same and effective implementation of a physical fitness program, a regular balanced diet, inoculation training for managing stress can improve the life of police personnel.

Keywords: Obesity, Overweight, Policemen, Risk factors
Introduction: The Revised National Tuberculosis Control Programme (RNTCP) uses sputum negativity as a prognostic indicator but does not consider any other dimension of health. Apart from physical symptoms, TB patients face social and economic problems. Therefore, the overall impact of TB on health and patients’ perception of well being should be considered. This can be performed by measuring the Quality of Life (QoL).

Methodology: A cross sectional study was undertaken in the Chalalkere Tuberculosis Unit of Chitradurga district for a period of two months between February and March, 2017. About 60 patients who are treatment for tuberculosis attending the tuberculosis unit were included as the study samples. The patients thus selected were obtained an informed, bilingual and written consent.

Results: The mean score of the physical component summary (PCS) was 54.1, mental component summary (MCS) was 48.6, physical functioning (PH) was 62.1, role limitation due to physical health (RP) was 52.2, body pain was 60.2, general health was 41.7, role limitation due to emotional problem was 54, energy/fatigue was 44.4, mental health was 46.7 and social functioning was 49.2. Conclusion: The mean value of physical component summary, mental component summary, physical health and mental health were higher for class III of SES, RP, MH and VT were higher for class V of SES and BP was higher for class I of SES.

Keywords: Quality of Life; Tuberculosis; SES.

Clinical Profile of Diabetic Patients with Liver Dysfunction

The spectrum of clinical disease in fatty liver with steatohepatitis varies from the asymptomatic elevation of liver enzymes to severe liver disease with fibrosis and nodular regeneration. Patients with non-alcoholic steatohepatitis can develop progressive liver disease and complications to the point that they may need liver transplantation. Nonalcoholic steatohepatitis should be considered as a cause for chronically elevated liver enzymes in asymptomatic diabetic patients particularly if they are obese and have hyperlipidemia. This study was carried out among 100 diabetic patients diagnosed to be with hepatic dysfunction attending tertiary care hospital during the study period. Maximum number of patients had diabetic nephropathy (17%), followed by diabetic retinopathy (15%), peripheral neuropathy (11%) and peripheral vascular disease (4%). Neuropathy, Nephropathy, PVD and Retinopathy were present in patients who had diabetes for more than 10 years.

Keywords: Diabetes; LFT; NAFLD.

A Cross Sectional Study of Pulmonary function tests among the municipal street sweepers of Chitradurga District Karnataka

Municipal street sweepers are exposed to large amount of dusts, microorganisms, toxins and automobile exhaust pollution. Chronic inhalation of such particulate matter has the potential to impair their pulmonary functions. The strict adherence to the standards and norms for the management of municipal solid wastes to reduce occupational health hazards in developing countries India is still a matter of concern. This study conducted among the municipal sweepers of Chitradurga district, compared the effects of chronic exposure to dust on the pulmonary function using spirometry test. This study also assessed the effects of smoking and irregular usage of protection masks, and compared the results with the healthy controls. Respiratory symptoms of cough (30%), chest pain (17.5%), catarrh and sneezing (21.5%) were found to be in higher percentage among the municipal street sweepers than the controls. Only 20% of participants municipal street sweepers used personal protective measures, regularly in the past 1 year, during sweeping streets. It was found that FEV1, FEV1/FVC, PEFR and FEF 25%-75% were significantly lesser among non-smoker street sweepers, when compared with that of non-smoking controls. Similarly these PFT values were significantly reduced among the smoker street sweepers and among the sweepers who didn’t use protective masks while sweeping. This study highlights the occupational hazard faced by municipal sweepers and attempts to emphasize on importance of usage of protective masks.

Keywords: Street sweepers; Personal Protective Measures; Dust; Spirometry.
<table>
<thead>
<tr>
<th>Journal</th>
<th>Authors</th>
<th>Title</th>
<th>Abstract/Highlights</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indian Journal of Immunology and Respiratory Medicine, October-December, 2018;3(4):158-164</td>
<td>Basavaraj Sangollu1, Rashmi B. M.2,*</td>
<td>Profile of the adverse drug reactions among the multidrug resistant tuberculosis patients treated at a tertiary level hospital in southern India</td>
<td>Background: The prevalence of multi-drug resistant tuberculosis (MDR-TB) is increasing worldwide. The treatment of MDR-TB is challenging due to its delayed diagnosis, prolonged duration of therapy with larger number of drugs, coupled with their great potential for adverse drug reactions (ADRs), which severely impair treatment adherence. Early identification and effective management of ADRs form the cornerstone to ensure treatment adherence, which is an essential aspect in better treatment outcome. Materials and Methods: A prospective observational study was conducted for a period of 3 years, at Basaveshwara Medical College and Hospital, Chitradurga. All MDR-TB patients who fulfilled study criteria were included in study. After pre-treatment clinical evaluation, necessary radiological, serological and bacteriological investigations, patients were treated by Cat IV regimen for MDR-TB and monitored for development of ADRs and treated appropriately. Results: Mean age of patients was 38 ± 3.6 years. A 70.9% of patients had low body mass index (BMI). A 74.5% of patients got successfully cured. ADRs were reported among 52.6% of patients. GI intolerance (49.1% in intensive phase) and psychiatric symptoms (41.8% in continuation phase) were most common ADRs reported. Low BMI was found to be significantly associated with ADRs. Conclusion: Meticulous and regular follow-ups with emphasis on early detection of ADRs during the course of ATT, dosage adjustments to effectively manage ADRs, addressing problem of malnutrition, a compulsory psychiatrist opinion as part of pretreatment evaluation and also during continuation phase of ATT to detect the emergence of psychiatric symptoms, will go a long way in achieving high rates of favourable outcomes among MDR-TB patients. Keywords: Adverse drug reactions; Depression; Suicidal tendencies; Malnutrition; Gastrointestinal intolerance.</td>
</tr>
<tr>
<td>International Journal of Research in Dermatology Manjunath KG et al. Int J Res Dermatol. 2018 May;4(2):136-141 <a href="http://www.ijord.com">http://www.ijord.com</a> DOI:<a href="http://dx.doi.org/10.18203/issn.2455-4529.IntJResDermatol20181047">http://dx.doi.org/10.18203/issn.2455-4529.IntJResDermatol20181047</a></td>
<td>Raghu M. T.2 Yogendra M.2,</td>
<td>A clinical and therapeutic study of efficacy of 40% glycolic acid facial peels in melasma</td>
<td>Background: The prevalence of multi-drug resistant tuberculosis (MDR-TB) is increasing worldwide. The treatment of MDR-TB is challenging due to its delayed diagnosis, prolonged duration of therapy with larger number of drugs, coupled with their great potential for adverse drug reactions (ADRs), which severely impair treatment adherence. Early identification and effective management of ADRs form the cornerstone to ensure treatment adherence, which is an essential aspect in better treatment outcome. Materials and Methods: A prospective observational study was conducted for a period of 3 years, at Basaveshwara Medical College and Hospital, Chitradurga. All MDR-TB patients who fulfilled study criteria were included in study. After pre-treatment clinical evaluation, necessary radiological, serological and bacteriological investigations, patients were treated by Cat IV regimen for MDR-TB and monitored for development of ADRs and treated appropriately. Results: Mean age of patients was 38 ± 3.6 years. A 70.9% of patients had low body mass index (BMI). A 74.5% of patients got successfully cured. ADRs were reported among 52.6% of patients. GI intolerance (49.1% in intensive phase) and psychiatric symptoms (41.8% in continuation phase) were most common ADRs reported. Low BMI was found to be significantly associated with ADRs. Conclusion: Meticulous and regular follow-ups with emphasis on early detection of ADRs during the course of ATT, dosage adjustments to effectively manage ADRs, addressing problem of malnutrition, a compulsory psychiatrist opinion as part of pretreatment evaluation and also during continuation phase of ATT to detect the emergence of psychiatric symptoms, will go a long way in achieving high rates of favourable outcomes among MDR-TB patients. Keywords: Adverse drug reactions; Depression; Suicidal tendencies; Malnutrition; Gastrointestinal intolerance.</td>
</tr>
<tr>
<td>2015 Indian Journal of Psychiatry</td>
<td>C.M. Gopal Das, Santosh Shanbhog</td>
<td>Disulfiram-induced seizures with convulsions in a young male patient: A case study</td>
<td>Disulfiram is the aversive therapeutic agent which has been used to treat alcohol dependence more than 50 years. It causes the complications like neurological toxicity, postural hypotension, circulatory collapse, mental confusion, etc. The aim of our study was to report a rare case of disulfiram-induced seizures in a patient of alcohol dependence syndrome. This case study is about a 35-year-old male patient who had one episode of seizures during treatment with disulfiram. Key words: Alcohol dependence syndrome, disulfiram, seizures</td>
</tr>
</tbody>
</table>
Gopal Das Mohan Das Chikkerahally

Assessment of quality of life in patients with alcohol dependence syndrome

Objective: To assess the quality of life (QOL) in patients with alcohol dependence syndrome (ADS) who presented for inpatient de-addiction programme. Methods: It was a cross-sectional descriptive study involving 100 consecutive consenting patients within the age of 18-65 years, admitted under inpatient de-addiction unit of tertiary care teaching hospital during 2013-14 after excluding axis-I psychiatric disorders, major medical illnesses, and other disabilities. The Alcohol Use Disorders Identification Test (AUDIT), 26-item World Health Organization Quality of Life Assessment Scale-Brief (WHOQOL-BREF) were administered and statistical analysis was done. Results: Ninety four per cent of the population were males and mean age was 39.08 (±7.66) years. Sixty six per cent were from urban background. The mean scores (transformed scores of 100 version in parenthesis) in physical domain was 9.4±1.73 (33.9), psychological...
Complicated withdrawal group and alcohol-induced psychotic disorder group had poorer QOL in physical and psychological domains. **Conclusion:** Patients with ADS had poor QOL in our study with similar findings reflected in studies from different parts of the world. These findings may help in devising better treatment approaches, planning, and individualising rehabilitation and improving productivity and functioning of patients, and thus, ultimately reducing burden on society.

**Keywords:** Inpatients, Alcohol Withdrawal, Psychotic Disorders, Rehabilitation

---

**Abstract** This study was designed to look for the patients demographics, mechanism of injury and fracture characteristics. Methods: Over all 40 cases of articular fractures of the distal radius were reviewed retrospectively. Patients who were treated for these fractures between 2015 and 2017 at a tertiary care academic institution were included in this study. Detailed radiological evaluation of wrist, fore-arm and hand x-rays were done. Results: These patients were more likely (32%, n=13) to be between 30-40 years with a mean age of 39.86 years (range 21-64 years). Seventy two percent (n=29) of the study group were males. MVC-Motor vehicle collision is the most common (72%, n=29) cause of this injury, followed by fall on outstretched hand. Frykman type VII and VIII were more frequent (52%, n=21). Complete articular fractures with varying degrees of metaphyseal comminution, (AO types C2 and C1 =77.5%, n=31) were more common fractures. More than 80% of the fractures were displaced and three-fourth of the fractures were comminuted. Conclusion: Articular fractures of distal radius mainly affects young individuals with male predominance. MVC is the most common cause of injury. Complete articular fractures of the distal radius with displacement and severe comminution (AO type C1 and C2) are most common. Understanding the epidemiology of this fracture can help surgeons to choose the most appropriate treatment strategies for the fracture and preventive measures towards at risk population. **Keywords:** Distal radius fractures, intra-articular fractures, epidemiology, patient demographics.

---

**Evaluation of results of comminuted intra-articular fractures of the distal end of the Radius treated by external fixation**

Thirty patients with comminuted intra-articular fractures of the distal end radius, less than 65 years old (mean age 38 years) have been treated by external fixation. Fractures were classified according to Frykman’s Classification. Radiological results were assessed using stewart’s criteria. Functional results were evaluated with Demerit point system of Garland and werly as modified by Sarmiento. It improves extra-articular alignment (radial angle, radial length and Volar tilt). The articular surface was restored to normal congruity or to within 1mm step-off in 23 patients. Only three patients had step-off more than 2 mm. The most common complications were pintract infections in three patients and radial nerve neuritis in two cases.

At mean follow-up of twenty-five months anatomical results and functional results were good to excellent in 83.33%(n=25) and 86.66%(n=26) respectively. Anatomical results correlated with functional results. Results suggest that the external fixation gives better anatomical and functional results and remains a viable surgical alternative for management of comminuted intra-articular displaced distal radius fracture.

**Keywords:** Distal radius fracture, articular fracture of distal radius, ligamentotaxis, external fixator.
Post-operative orthopaedic hyponatremia: Etiology and clinical approach

Hyponatremia is common after orthopaedic surgeries. The prevalence of hyponatremia in the post-operative period is 25-40% in elderly patients. It can cause serious and potentially life threatening complications. Identifying the cause (etiology) and providing appropriate treatment can mitigate the adverse effects of hyponatremia. Depending on the underlying cause, the treatment of hyponatremia can be markedly different. The aim of the study is to determine the cause of post-operative orthopaedic hyponatremia.

Methods: This is a prospective study of adults aged more than 65 years admitted with major lower limb fractures who developed post-operative hyponatremia. ECF volulme status was assessed by clinical examination and biochemical parameters.

Results: Thirty five patients developed post-operative hyponatremia. The most common cause of post-operative orthopaedic hyponatremia was hypovolemia 45.71% (n=16), followed by euvolemia (SIADH) in 25.71% (n=9). Acute kidney injury, hypervolemia and medications each in 3 cases (8.57% each), hypotonic fluids in one case. Etiology was multifactorial in 77.14% (n=27).

Conclusions: Hypovolemia and euvolemia with SIADH are the two major causes of hyponatremia after orthopaedic surgery. The treatment requirements are exact opposites. Hypovolemia requires rehydration with IV fluids whereas SIADH needs fluid (free water) restriction. Understanding the etiology of hyponatremia helps to treat hyponatremia with optimal use of IV fluids and avoids adverse outcomes.

Keywords: Orthopedic surgery, post-operative, hyponatremia, causes, diagnosis, practical approach

The value of minimum intensity projection technique in the assessment of interstitial lung disease and asthma,

CT produces a volume of data which can be manipulated, through a process known as windowing, in order to demonstrate various structures based on their ability to block the X-ray/Rontgen beam. Although image collimation is prospectively fixed in axial and older scanners, collimation can also be retrospectively changed on newer generation of MDCT. A single Centre prospective study was conducted among patients who came for CT chest to our clinic, who were showing features of interstitial lung disease and bronchial asthma. Out of 50 patients 27 are males and 23 are females. The patient’s age range is from 21years to 88years; with mean age is 52-53years. Most common symptom of presentation is dyspnea on exertion, cough, seasonal attacks of breathlessness and fever.

Key Word: Minimum Intensity Projection Technique, Interstitial Lung Disease, Asthma

A study to compare MinIP findings of lung with the HRCT finding

The obvious low attenuation lesions noted in both HRCT and MinIP, but when the lesions are subtle MinIP appeared to better than HRCT in picking the finding. MinIP images mainly increased the conspicuity of the low attenuation lesions when they are subtle or when not seen in HRCT. Hence helps to increase the confidence of radiologist in picking up such findings. Nodules, linear, reticular opacities and vasculature markings are better seen in HRCT images as compared to the MinIP images.

Key Word: HRCT, CECT, MinIP
<table>
<thead>
<tr>
<th>Page</th>
<th>Journal Details</th>
<th>Title</th>
<th>Authors</th>
<th>Abstract/Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>31</td>
<td>International Journal of Physiology, July-December, 2015, Vol. 3, No. 2</td>
<td>A Comparative Study of Variations in Hematological Profiles in Different Trimesters of Normal Pregnancy</td>
<td>Dr. Tejashwini V Basarigidad1</td>
<td><strong>Background:</strong> The haematological profile of an individual to a large extent reflects their general health and many studies have identified the haematological profile of the pregnant woman as one of the factors affecting pregnancy and its outcome. The study was aimed to determine the effect of pregnancy on haematological indices and compare the haematological indices at different trimesters of normal pregnancy. <strong>Pregnancy Objectives:</strong> To evaluate the values of some major hematological parameters at different trimesters of pregnancy. <strong>Materials and Method:</strong> The research involved 30 healthy pregnant women as the study group and 10 non pregnant women as control. Age range of these women was 20-30 years.3 millilitres of venous blood collected from the median cubital vein with minimum stasis were put into EDTA bottle. The blood was properly mixed and analyzed for packed cell volume (PCV), total white cell count, Differential count and Erythrocyte sedimentation rate (ESR). <strong>Results:</strong> The result showed that study group exhibited statistically significant lower values of PCV, monocyte and lymphocyte while WBC, eosinophil and ESR were not significantly changed. There was no significant difference in all hematological parameters among the three trimesters. <strong>Conclusion:</strong> Healthy pregnancy may have effect on hematological parameters. Therefore there is a need to monitor these parameters during pregnancy. We also find that stages of pregnancy have no influence on hematological parameters. <strong>Keywords:</strong> Hematological Profiles, Trimesters, Pregnancy.</td>
</tr>
<tr>
<td>32</td>
<td>International Journal of Physiology, January-June 2015, Vol.3, No.1</td>
<td>Changes in Blood Leucocyte Count in Different Trimesters of Pregnancy</td>
<td>Dr. Tejashwini V Basarigidad1</td>
<td><strong>Aims and Objective:</strong> Normal pregnancy involves many changes including alterations in hematologic parameters. These hematologic changes include changes in total leucocyte count and differential leucocyte count during pregnancy. Therefore in the present study, the changes in total leucocyte count and differential leucocyte counts are studied in the pregnant women in different trimesters of pregnancy. <strong>Materials and Method:</strong> 30 pregnant women in the age group of 20 to 30 were enrolled for the study. Total leukocyte count and differential leucocyte count were measured on samples of blood obtained from each consenting participant during each of the three trimesters. The results were analyzed using SPSS for windows (Version 11) and the data expressed as means ± S.D. Means were compared using the student’s paired t-test. <strong>Results:</strong> Total leucocyte count and differential leucocyte count were compared with each other between trimesters and none of the values were found to be statistically significant. (p&gt;0.05) <strong>Conclusion:</strong> The total leucocyte count rises progressively during pregnancy. The increased total leucocyte count in third trimester may be caused by the increased level of estrogen and cortisol hormone. The increase in leucocyte count is largely due to increase in circulating segmented neutrophils. In labor the leucocyte count is even more and count is highly correlated with labor progression as determined by cervical dilatation. One more cause may be reappearance of leucocytes previously shunted out of active circulation. <strong>Keywords:</strong> Hematological Profiles, Trimesters, Pregnancy.</td>
</tr>
</tbody>
</table>
Incidence and clinico-anatomical relevance of pneumosinus dilatans frontalis using computed tomography and in south Indian skulls

Introduction: Pneumosinus dilatans (PD) is a rare craniofacial malformation characterized by unusual hyperaeration of any one of the paranasal sinuses. The etiology and pathogenesis of this condition remain unclear. Here we are presenting a case study on the incidence of Pneumosinus Dilatans Frontalis (PDF) using computed tomography and in south Indian skulls.

Materials and Methods: The present study was carried out in 92 dried adult human skull of unknown sex obtained from Department of Anatomy and 120 patients underwent paranasal sinus Computed tomography (CT) for various reasons at Bhasaweshwara Medical college and hospital, Chitradurga, Karnataka. The incidence of unilateral and bilateral PD was observed and photographed.

Results: Out of 90 dried skulls, the incidence of unilateral PDF was found in only one case (1.09%). In the present study, the incidence of bilateral PDF was not found in dried skulls. A total of 120 (240 slices) CT scans of the nose and paranasal sinuses were reviewed. We observed 3 cases (2.5%) of bilateral PDF among them 2 cases were seen in males and one case in female.

Conclusions: PD is rare craniofacial deformity affects all paranasal sinuses but most commonly affects the frontal sinus. Hence, a detailed anatomical and morphometric knowledge of the region is necessary to perform the successful surgeries and outcome in the region.

Keywords: Frontal sinus, paranasal sinus, Pneumosinus dilatans, Pneumosinus dilatans frontalis.

The ECG Change in QRS Complex- A Tool for Evaluation of Heart Disease in Asymptomatic Type II Diabetics

Background: The chronic hyperglycemia of diabetes mellitus is associated with long term damage, dysfunction and failure of various organs especially the eyes, kidneys, nerves, heart, and blood vessels. Electrocardiographic (ECG) abnormalities are found to be predictors of silent ischemia in asymptomatic persons. Aim and Objective of the study: The purpose of this study is, to detect & compare the electrocardiographic changes (QRS complex) in asymptomatic type II diabetics & controls. Materials and Method: Fifty type II DM cases aged between 30-55 years and minimum of fifty age and sex matched controls for each group were selected from the general population satisfying the inclusion criteria. Findings: There was statistically highly significant increase in QRS duration among type II Diabetics when compared to controls (p<0.001). There was no statistically significant difference in QRS axis between type II DM cases and controls (P > 0.05). There was no statistically significant difference in QRS amplitude among type II diabetics when compared to controls (p > 0.05). Conclusion: The prolonged QRS complex can be considered as the evidence that the heart of diabetic patients is damaged by cardiomyopathy. Hence the screening of diabetics for electrocardiographic abnormalities is strongly recommended at the time of diagnosis for proper interventions & to prevent complications at the earliest.

Keywords: QRS complex, ECG change in type II diabetics, heart disease asymptomatic type II diabetics
<table>
<thead>
<tr>
<th>Page</th>
<th>Journal Title</th>
<th>Authors</th>
<th>Title</th>
<th>Background</th>
<th>Aim and Objective of the Study</th>
<th>Materials and Methods</th>
<th>Results</th>
<th>Conclusion</th>
<th>Keywords</th>
</tr>
</thead>
<tbody>
<tr>
<td>35</td>
<td>International Journal of Physiology, April-June 2019, Vol. 7, No. 2</td>
<td>Aftab Begum</td>
<td>Dyselectrolytaemia in Middle Aged Type II Diabetes Mellitus – A Harbinger of Cardiac Function Abnormalities</td>
<td>Diabetes mellitus (DM) is a chronic metabolic disorder. The management of blood glucose and other modifiable risk factor is a key element in the multifactorial approach to prevent complications of diabetes and decreasing the mortality and morbidity.</td>
<td>To determine the serum electrolyte (sodium &amp; potassium) in asymptomatic type II diabetic cases and with controls.</td>
<td>Fifty type II DM cases aged between 30-55 years and fifty age and sex matched controls were selected from general population. Detailed physical and systemic examination was done. Ethical clearance and informed consent was taken. Estimation of Serum electrolytes (Sodium and Potassium) is done by Ion selective electrode method. Unpaired t-test was used to compare the parameters between type II DM cases &amp; controls by using SPSS version 16. Level of significance was set at p&lt;0.05.</td>
<td>There was statistically significant increase in Serum potassium level among type II diabetics when compared to controls (p&lt; 0.001)</td>
<td>There was significant increase in Serum potassium level among type II diabetics when compared to controls. Hence the screening tests such as estimation of serum electrolytes are strongly recommended at the time of diagnosis for proper interventions which could prevent the complications at an earlier date.</td>
<td>Type II Diabetes mellitus, Serum electrolytes. Cardio vascular abnormalities, Serum Potassium, Serum Sodium.</td>
</tr>
<tr>
<td>36</td>
<td>International Journal of Basic &amp; Clinical Pharmacology</td>
<td>Dharmaraj B.1.</td>
<td>The comparisons of the efficacy of two fixed dose combinations, i.e. Salmeterol and Fluticasone vs. Formoterol and Tiotropium bromide in moderate to severe COPD patients</td>
<td>Bronchodilators are essential for symptomatic management of all stages of chronic obstructive pulmonary disease (COPD). For patients whose COPD is not sufficiently controlled by monotherapy, combining a ß2-agonist with either inhaled steroid or anticholinergic drug is a convenient way of delivering treatment. Currently, there is no documentation to say that one drug is superior to other or the contrary, but a combination of two drugs is more effective than giving single drug alone in patients suffering from COPD.</td>
<td>The study was prospective, open labelled, randomized, comparative interventional clinical study conducted by the Departments of Pharmacology and Medicine, Basaveshwara Medical College and Hospital, Chitradurga in 60 moderate to severe COPD patients.</td>
<td>Both the treatments i.e. Salmeterol/Fluticasone and Tiotropium/Formoterol were equally effective as far as the improvement of the lung functions and Borg dyspnoea score are concerned. The difference in improvement with the combination of Salmeterol/Fluticasone was not statistically significant (p&gt;0.05) compared to the combination of Tiotropium/Formoterol. However, Salmeterol/Fluticasone was found to be better than Tiotropium/Formoterol in improving the lung function of moderate to severe COPD patients.</td>
<td>Salmeterol/Fluticasone is efficacious and better than Tiotropium/Formoterol combination for maintenance therapy in moderate to severe COPD patients.</td>
<td>COPD, FDC, LABA, ICS, Inhaled bronchodilators, Tiotropium</td>
<td></td>
</tr>
</tbody>
</table>
Chandan V2, Study of Craniocerebral injuries in Chitradurga Region

Crano-cerebral damage has been recognized since ages. Head injury as defined by the national advisory neurological diseases and stroke council, “is a morbid state, resulting from gross or subtle structural changes in the scalp, skull, and or the contents of the skull, produced by the mechanical forces”. Of all the regional injuries, Craniocerebral-injuries are the most important in Forensic practice, as the incidence and severity of head injuries are increasing with burgeoning industrialization and more rapid methods of transportation. Head injury is a major public health problem and has attained epidemic proportions in India. The present study includes data over a period of 3 years (2 years retrospective and 1 year prospective). This study includes 338 cases (118 prospective cases and 220 retrospective cases) of head injury. In retrospective analysis data were collected from the medical records. Road traffic accidents 256(75.74%) constitute the majority followed by 60(17.75%) are due to falls. 68(26.56%) of road traffic accident victims had history of alcohol consumption before the incident. 316(93.49%) cases survived and 22(6.51%) cases were dead. Head injuries due to assault were 20(5.92%) of which use of blunt weapon is more common 17(85%) cases followed by sharp weapon constitute 15% cases. Intracranial hemorrhages more common in road traffic accidents followed by falls from heights. Subdural hemorrhage was the commonest with 96(28.40%) cases followed by subarachnoid hemorrhage in 91(26.92%) cases. Extradural hemorrhages stand next with 72(21.30%) cases.

Keywords: Road traffic accidents, Motorcycle riders, Subdural hemorrhage, Skull fractures

Chandan V2, Autopsy Study of Thoraco-Abdominal Injuries in Road Traffic Accidents in Chitradurga

Geographically, Chitradurga district, in central Karnataka, is well connected by roads- National Highways State highways, and hence density of vehicles traversing is also high. Having said this, morbidity and mortality by RTAs is also on a high, however this is preventable. Thus this study was done know the incidence and also implement safety measures and to strengthen legal measures. Injuries caused by RTAs to chest and abdomen were studied in detail. This study includes victims died of RTA of age of all year age groups. Most incidents occurred in National Highways, Urban roads and village roads. Majority of the cases died on spot by fatal injuries. Heavy motor and two wheeler vehicles were involved in majority of cases followed by two wheelers only. External injuries most frequently observed were abrasions. Fatal injuries were noted in the region of head followed by abdomen and chest.

Keywords: RTA, Vehicles, Road user, Highway, thoraco-abdominal injuries.