stridor and swelling in front of neck which did not move with deglutition. A provisional diagnosis of carcinoma thyroid was made. USS neck showed diffuse thyroid enlargement and right UV thrombosis. CT scan showed mediastinal soft tissue mass and para tracheal lymphadenopathy. FNAC thyroid was suggestive of large cell NHL. Patient was treated with steroids, heparin and oxygen. Chemoradiotherapy was planned. However he developed sudden worsening of dyspnoea, stridor and hypoxia. In spite of resuscitation, he expired.

**Discussion:** Primary thyroid non-Hodgkins disease is extremely rare. In non-Hodgkin's disease, an extranodal site can be the primary source in approximately 30% of cases, and the thyroid gland is among the most common of these extranodal sites. Thyroid lymphomas constitute only 3% of all NHLs and approximately 5% of all thyroid neoplasms. This case is being presented to highlight extranodal lymphomas occurring in thyroid which if left untreated can be fatal.

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**200 Gross Proteinuria: A Diagnostic Challenge**

Rohith V, Kannan Venugopal, Shastry BA, Rao Vittal PV
Kasturba Medical College Hospital, Manipal

**Case Report:** 46 year old goldsmith was referred from a local hospital with complaints of pain in the right shoulder joint for the past 3 months. Evaluation outside showed proteinuria (Urine protein ++++) Systemic examination was unremarkable except for pallor and tenderness over the right shoulder joint. On evaluation 24 hour urine protein was markedly elevated. Complete blood picture with ESR, LFT, RFT, US abdomen were essentially normal. X-ray showed gross osteoporosis of all bones. Calcium and phosphorus were essentially normal. HIV and HBSAg were negative. C$_2$ and C$_3$ - normal. Connective tissue work up was negative. So in view of the proteinuria a renal biopsy was done which showed cast nephropathy. So a diagnosis of multiple myeloma was made but urine Bence Jones proteins negative. IgA IgG, IgM were all normal and the serum protein electrophoresis showed only decrease in albumin. So a bone marrow biopsy was done to confirm the diagnosis which showed 62% immature plasma cells. This case is being presented because of its unusual presentation with periarthritis shoulder with a normal ESR and urinary proteins.

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**201 Non-Hodgkin Lymphoma Masquerading Carcinoma Lung**

Chander Mohan, Aparna, Sean George T, Shubha S.
Kasturba Medical College Hospital, Manipal.

70 year male chronic smoker presented with productive cough, weight loss since 2 month duration and dyspnoea, non-pleuritic diffuse left side chest pain since 15 days. Physical examination was remarkable for a hard 3 x 3 cm non tender, fixed left supraclavicular lymph node and bilateral digital clubbing but no HPOA. Systemic examination showed evidence of left side pleural effusion with left sided Horner’s syndrome. Possibility lung carcinoma was considered.

**Investigation:** Radiograph - left apical opacity with left sided pleural effusion. Pleural fluid analysis by exfoliative cytology showed NHL, FNAC lymph node suggestive of NHL.

CT thorax: Mass lesion from apex of left lung? Pleura extending to mediastinum.

CT Abdomen: Normal.

In order to have definite tissue / pathological diagnosis lymph node biopsy was done which showed intermediate grade NHL. Patient was treated with doxorubicin containing CHOP chemotherapy with which he improved drastically.

**Conclusion:** This case highlights atypical presentation of NHL and importance of keeping in mind the possibility of NHL while evaluating a malignant lesion.

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**202 Lymphoma Presenting as Cardiac Tamponade**

Department of Medicine, Maulana Azad Medical College, New Delhi - 110 002.

Lymphoma presenting as cardiac tamponade is a very unusual and rare presentation. We report the case of a 40-year-old female, presented in medical emergency with the complaint of severe breathlessness for three days. There was history of mild to moderate fever for 3 months. There was no history of night sweats, cough, expectoration, hemoptysis, jaundice, pulmonary T.B., diabetes, hypertension or coronary artery disease. On examination patient was tachypneic, pulse rate 108/min, BP 100/70 mmHg with a paradox of 20 mmHg, J V P was raised. A swelling hard in consistency measuring 4x3 cm extending from 2nd to 4th rib in the left side of chest was present. On respiratory system examination air entry was reduced in the left basal area. On CVS examination heart sounds were distant. Per abdominal and CNS examination were insignificant. Chest x-ray showed widening of superior mediastinum with cardiomegaly and left sided pleural effusion. ECG showed low voltage complexes, USG abdomen was normal. Echocardiography revealed large pericardial effusion with RA/RV collapse suggestive of cardiac tamponade. In order to relieve cardiac tamponade 400 ml haemorrhagic fluid was aspirated. CECT showed a large mass (15 x 9 x 8 cm) in the superior mediastinum displacing heart and great vessels, posteriorly and inferiorly; pericardial effusion and thickening, left side hydropneumothorax with right pleural effusion. Pleural fluid and pericardial fluid did not show any malignant cell. PCR for tuberculosis was negative; HIV was negative, FNAC showed only reactive lymphadenitis. Biopsy of mass revealed sheets of small rounded cells with scanty cytoplasm, finely stripped nuclear chromatin and inconspicuous nuclei, large areas of necrosis present and gave impression as lymphoma. LCA marker was positive. A final diagnosis of malignant lymphoma with cardiac tamponade with bilateral pleural effusion was made.

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**Miscellaneous**

**203 Ayurved-Synthesis of Health and Spirituality**

Agnihotri MS, Agnihotri H
CSP Medical University (KG Medical College) and Agnihotri Chikitsalya, Lucknow.

Ayurved is an Indian system of medicine originated in India and developed by its resources. Knowledge including both sensory and mental perceptions is Holistic. Only small part of total knowledge is gained by sensory perception because senses have limited capacity. Ayurved is based on Holistic principles. The aims of Ayurved are that a man should be capable of doing his duties, earn money and enjoy life by keeping good health and lastly should have spiritual achievement of salvation. According to Ayurved human living body is a combination of matter made up of five types of elementary particles (Akash, Vayu, Agni, Ap and Prithvi) and knowledge (Atma). Human body has three divisions (1) Gross body, (2) Mental body and (3) Casual body Gross and mental body are subject of medicine whereas casual body is a part of spirituality. Ayurved deals with all the three parts of human bodies whereas a western medicine takes care of only Gross body including brain. Ayurvedic principles are conclusion of Holistic research by mind. Spiritual belief that truth is NITYA (Never change) SMARHAME (can be applied to any branch of knowledge) and is ANUHANANTHI (Universally valid) is quality of Ayurvedic principle also. Spiritual practices like
Yog and Pranayam have hidden health messages. Spiritual place like Sangam at Allahabad favors calmness of mind. Karam Phal (KARM PHAL) denotes that do’s and don’ts are important for remaining healthy.

204 SARS - The Global Pandemic
Aggarwal Rashmi, Bansal JK
Institute of Nuclear Medicine and Allied Sciences (INMAS), Faridabad, Haryana.

SARS is a recently identified life threatening new coronavirus infection first reported from Guangdong province of China followed by reports from Vietnam, Canada, Hongkong, Taiwan, Singapore and Thailand. SARS is a pandemic of our global age. In first few weeks SARS had traveled through air to at least three continents. On March 12, 2003 the WHO issued a global alert about SARS. Dr. Carlo Urbani, a specialist in infectious diseases is the man behind the early detection of SARS. SARS presents predominantly with high fever greater than 38°C, dry cough which in some cases proceed rapidly to respiratory failure accompanied by radiographic evidence of an air space disease. The incubation period of the disease varies from 1-11 days. Centre for Disease Control and Prevention (CDC) defines SARS by the following criteria: Presence of fever greater than 38°C. A chest radiograph showing consolidation with or without respiratory symptoms. A history of exposure to an index patient suspected to have SARS or history of travel to SARS affected country.

The diagnostic investigations include ELISA, RT - PCR and electron microscopic analysis of BAL. Treatment includes administration of broad spectrum antibiotics like macrolides (clarithromycin or azithromycin) or beta lactam antibiotics. Empirical treatment with intravenous ribavirin (8 mg / kg intravenously 8 hourly) with or without corticosteroids have been tried.

SARS has become a global health hazard and its infectivity is alarming. Early recognition, prompt isolation and appropriate therapy are the keys in combating this deadly infection.

205 A Common but Usually Undiagnosed Cause of Abdominal Pain
Shenoy Suresh, Alvares JF, Rau NR, Sharma Sadhna, Chetan E, Anjana R
Kasturba Medical College, Manipal.

Forty-nine year old male was referred to us for the evaluation of unexplained anemia. He also complained of diffuse abdominal pain of 3 days duration. He had received blood transfusion elsewhere and ayurvedic medicine since the last 4 months for leg pain. He had a history of diabetes mellitus and hypertension. Physical examination revealed pallor. Gastroscopy and colonoscopy were normal. Investigations revealed Hb 8.6 g/dl, corrected retic 4.5% and normocytic normochromic to microcytic hypochromic on peripheral smear. Bone marrow showed erythroid hyperplasia, early megaloblastic changes and mild dyspoiesis. Serum iron studies, vitamin B12 and folic acid levels were normal. Serum LDH was normal. He had urinary tract infection which was treated and asked to follow up for anemia.

He presented again within 3 days with severe abdominal pain. Physical examination revealed pallor, abdominal detention with sluggish bowel sounds. He developed delirium in the hospital, which resolved with zolpidem. CT scan abdomen was normal, urine porphyrins were positive, urinary porphobilinogen was negative, urinary delta-aminolevulinic acid was 35 mg/l (normal: upto 6 mg/l). Serum lead levels were raised (131 microgram/dl). Patient is started on D-penicillamine and is on follow up. Analysis of the ayurvedic medicine revealed that it contained lead.

Lead poisoning is a cause for unexplained anemia and abdominal pain. In patients on alternative medicines with abdominal pain, lead poisoning should be entertained in the differential diagnosis. This case was presented to create awareness that lead poisoning is common in India and patient presenting with abdominal pain with inconclusive investigations, a suspicion of lead poisoning should be entertained.

206 Submucosal Fibrosis of Mouth after Consuming Haridakhandi and Gopalji Mawa Masalas
Samal KK, Patnaik B, Swain KP, Rout PK, Mohanty N
M.K.C.G. Medical College, Berhampur, Orissa.

Submucosal fibrosis (SMF) of oral cavity due to Haridakhandi and Gopalji Mawa Masalas (ingredients are: coriander, poppy seeds, lime, natural spices, ANI seeds, tobacco and betel nuts) was studied in 50 patients (all males) in M.K.C.G. Medical College Hospital during a period of two years. The age ranged from 20 to 35 years. All had consumed the Mawa Masalas for a period ranging from 1½ to 6 years. All had developed the clinical symptoms of not opening the mouth upto satisfactory range. The orifice of mouth in full opening was <1 finger in 30; 1 to ⅓ finger in 15 and upto 2 fingers in 5 patients. On examination of posterior aspect of buccal cavity revealed white patches in all. All showed significant improvement after stopping the Mawa Masalas and with treatment with oral prednisolone (20 mg daily for 14 days without tapering) and antioxidants and physiotherapy. The improvement was observed after 15 days of therapy. Complete recovery was observed after 4 months in 30 and partial in rest 20 cases. None of them developed oral cancer. Hence, Mawa Masala may be a cause of submucosal fibrosis.

207 Therapeutic Use of Limited Time “Pranayam and Meditation” in Modifying Various Body and Mind Parameters
Sharma RS, Nema Sanjay K
Dept. of Cardiology, Govt. NISCB Medical College, Jabalpur (M.P).

Aim of this study was to study changes if any of limited use of “Pranayam and Meditation” on various body and mind parameters in healthy as well as hypertensive individuals not presently controlled on conventional anti-hypertensive management.

Hundred subjects (50 males and 50 females) in the age group 18 to 75 years who were either normal healthy (50 in number - 25 males and 25 females) or having mild to moderate hypertension (50 in number - 25 males and 25 females) underwent yogic practice of ‘Pranayam’ and meditation for thirty minutes alternate day for 3 months. Various physiological, psychological and biochemical parameters were studied as baseline data and following 3 months of practice of above Yogic practice. No other physical exercise programme was done during this period biochemical parameters included blood glucose, lipid profile urinary VMA. Psychological evaluation was done by using personal orientation inventory and feeling of subjective well being. Physiological parameters included pulse, B.P., respiration rate, breath holding capacity, lung function tests using computerised spirometry. Patients were advised to continue their medication. Results showed decrease in B.P. systolic and diastolic B.P from 162.8±5.4 to 140.4±4.2 and 108.2±3.6 to 88.8±2.8 respectively in hypertensive individuals and from 135±5.1 to 122±4.1 and 80.2±2.6 to 70.2±2.2 respectively in normal healthy individuals. It is concluded that even limited amount and duration of limited Yogic practice of pranayam and meditation can play an important adjuvant role in modifying various body and mind parameters favourably with even less time spent than conventional more time consuming Yogic and other physical exercises.
A 21 years old male farmer by occupation, a resident of Gujarat presented with low grade fever, easy fatigability, generalized weakness of 2 months duration and multiple swellings on right side of neck, since 2 years. He was a bidi smoker since 4 years. On examination multiple swellings were located in the posterior triangle of neck (right). The consistency of the swellings was firm. They were non-tender, non-matted and no discharging sinus was present. The largest lymphnode measured 4.5 x 2 cms. He was evaluated for neck swelling before 2 years with normal chest X-ray and was given anti-koch’s treatment. His hemoglobin was 6.1 gm % with total count, differential count, and platelet count within normal limits. His indices were suggestive of hypochromic microcytic anemia with increase red blood cell distribution width. His erythrocyte sedimentation rate was 70 mm for first hour. Peripheral smear examination showed hypochromic microcytic anemia with no a typical cells. His HIV status was negative. Serum lactate dehydrogenase was within normal limit. Chest x ray was normal. Serum toxoplasma IgG and IgM titers were normal. USG abdomen showed splenomegaly with hypoechoic lesion in lower pole with no other abnormality detected. Bone marrow aspiration showed moderate erythroid hyperplasia with mixed erythropoiesis. Iron staining was absent. Tuberculin test was ‘0’ mm. His serum protein level showed hyperglobulinemia. Serum protein electrophoresis showed, polyclonal hyperglobulinemia. Excisional biopsy was performed from largest lymphnode in the posterior cervical region of neck. Lymphnode biopsy revealed plasma cell type of castelman’s disease. Patient was diagnosed as a case of plasma cell type castelman’s disease.

Patient was treated with oral prednisolene 40 mg everyday morning and was observed after 2 months. The lymphnode size was reduced by >75% as compared to previous size when the patient initially presented to us. Splenic size also became normal on ultrasonography of abdomen and hypoechoic lesion in lower pole of spleen disappeared.

Conclusion: Tuberculous lymphadenopathy is common cause of cervical lymphadenopathy in India. In absence of specific evaluation of lymphadenopathy trial of anti-koch’s treatment is commonly given in such cases. When not responding to anti-koch’s treatment other rare causes of lymphadenopathy should also be taken into consideration. One of the rare causes is castelman’s disease.

Sibutramine Therapy and Metabolic Response
Jeelani Romshoo G
Department of Health Services Kashmir, SD Hospital, Shopian

Aim: To determine the effect of Sibutramine therapy on the metabolism of glucose, lipids and uric acid in obese patients.

Material and Methods: This study comprised 58 obese patients (BMI > 30 kg/m²) with hyper-lipidemia, hyper-uricemia or diabetes mellitus. Their metabolic disorder/disease was not under control despite being on different anti-metabolic drugs. Instead of increasing the dose of these anti-metabolic drugs, the problem of obesity was addressed and they were put on Sibutramine 10-15 mg/day besides the usual anti-metabolic drugs. Estimation of blood sugar, uric acid, lipid profile and weight assessment was done after every 4 weeks for 6 months. Blood pressure was also monitored regularly.

Results: Out of 58 obese patients, there were 28 patients with type 2 diabetes mellitus (16 females, 12 males with mean BMI±S.D=33.6±4.7), 16 hyperlipidemia patients (10 males, 6 females with BMI±SD=31.5±3.8) and 14 hyper-uricemia patients (7 males, 7 females with mean BMI±SD=32.7±3.2). Weight reduction and favourable metabolic response was noticed from the 10th day onwards and maximum beneficial affect was noticed during first two months and favourable response was maintained up to the end of study (6 months) in all the three metabolic groups. Mean weight reduction of 4.9 kg, mean BMI reduction of 2.2 kg/m² was observed during this study. There was a significant decrease in waist circumference and waist hip ratio. There was a significant decrease in blood sugar levels from the baseline values (5.15 mmol/L to 4.93 mmol/L), HbA1c (6.12% to 5.52%), uric acid (3.33 mmol/L to 2.78 mmol/L), triglycerides (1.84 mmol/L to 1.39 mmol/L), cholesterol (5.11 mmol/L to 4.94 mmol/L), LDL-cholesterol (3.10 mmol/L to 3.02 mmol/L), HDL-cholesterol (1.20mmol/L to 1.18 mmol/L). None of our patients developed increase in blood pressure during the therapy.

Conclusion: A significant favourable response to sibutramine makes it an important drug therapy in different metabolic disorders associated with obesity especially in syndrome X patients.

Soleus Muscle Intramyocellular Lipid (IMCL) Content Does Not Correlate with Insulin Resistance in Non-Diabetic Asian Indians
Sinha Sanjeev, Rathi M, Kumar V, Jagannathan NR, Pandey RM, Misra A
Departments of Medicine, NMR and Bioassaytis, All India Institute of Medical Sciences, New Delhi.

Objective: To estimate IMCL content in soleus muscle in healthy males, and correlate it to anthropometry and measures of obesity, serum lipoproteins, and surrogate markers of insulin resistance.

Methods: Thirty healthy males were evaluated with anthropometry (body mass index [BMI], percentage of body fat [% BF], waist-to-hip ratio [W-HR], and skin folds at 4 sites). IMCL content of soleus muscle was measured by proton nuclear magnetic resonance spectroscopy of soleus muscle. Homeostasis Model Assessment (HOMA) method was used for the calculation of insulin resistance.

Results: The mean %BF was 27.3±5.4 and 20 subjects had excess body fat. The mean IMCL content was 12.6±7.2% intensity water resistance peak. The mean HOMA value was 4.3±2.8. IMCL content significantly correlated with %BF (r =0.47, p <0.05), W-HR (r =0.51, p <0.05), waist circumference (r =0.39, p <0.05), BMI (r =0.43, p <0.05) and age (r =0.55, p <0.05). IMCL content was significantly higher if subjects had %BF ≥25 (p =0.002), W-HR ≥0.95 (p =0.03) and BMI ≥25 kg/m² (p =0.02). IMCL content did not correlate with HOMA value.

Conclusions: IMCL content of soleus muscle does not correlate with insulin sensitivity in healthy Asian Indians.

HUS: We Need Markers
Acharya Vasudeva, Prabhu Ravindra
Kasturba Medical College, Manipal.

Introduction: Hemolytic uremic syndrome (HUS) is often seen following enteric infections and drugs causing hemolysis with severe renal failure. In the present case there were multiple reasons for renal failure one of which being HUS, which was recognised early and treated accordingly.

Case Report: A 37 years old lady, a known hypertensive presented with fever, pain abdomen and hematuria. She had anemia, accelerated hypertension and evidence of peritonitis. In the hospital she developed anuria, significant fall in the hemoglobin levels along with features of haemolysis. She was treated with plasmapheresis, hemodialysis, antibiotics and conservative measures. She also required resection of ileum for progressive necrotising enterocolitis. Following this the hemolytic component improved, however continued to be anuric requiring dialysis. A renal biopsy done later in course revealed features
of ischemic acute tubular necrosis (ATN). She made a partial recovery in renal function after 6 weeks.

**Discussion:** This patient had a combination of HUS and ischemic ATN as causes of renal failure, the former improving following plasmapheresis, the latter taking a long time for recovery though partial. Though there was clear evidence for sepsis causing renal failure, the suspicion of HUS and accordingly treatment has probably saved her life. We are still in search of specific marker for HUS and a high index of suspicion is needed in diagnosing this type of cases.

### 212 Pyoderma Gangrenosum - A Case Report

Y Manohar. Mukhyaprana Prabhu, Sudha V
Dr. T.M.A. Pai Hospital, Udupi, Kasturba Medical College, Manipal.

A 29-year-old man, a 2-year-old driver came with spontaneously evolved multiple painful red nodules on leg and both arms. One was ulcerated with undermined edges. Systemic examination was unremarkable.

Baseline investigation showed raised ESR and mildly raised bilirubin and liver enzymes, normal urine analysis, peripheral smear was normal, and also aPTT, and hepatitis workup was normal. Skin biopsy was taken and histopathological examination was consistent with pyoderma gangrenosum. Later bacterial and fungal cultures were turned out to be negative.

**Treatment:** He was put on prednisolone 40 mg OD. He is under follow-up regularly. In last visit his skin lesions had improved.

**Conclusion:** 50% of pyoderma gangrenosum cases are associated with systemic diseases. So it is very crucial to identify it and work up completely to look for systemic diseases.

### 213 Change in Dietary Habits of Postmenopausal Women Inhabitants after Migration to Urban Slums of South Delhi.

Department of Diabetology*, Medicine**, Biostatistics***, All India Institute of Medical Sciences, New Delhi-110029.

**Background and Objectives:** Urbanisation has brought about significant change in dietary pattern among rural-urban migrants. The aim of this study was to determine the changes in the dietary profile of the postmenopausal women after their migration to urban slums from their respective native places.

**Methodology:** In this cross-sectional study, the present dietary intake of the postmenopausal women residing in urban slums of Delhi was evaluated by 24-hour recall method, and the dietary intake before their migration was assessed on weekly and monthly basis.

<table>
<thead>
<tr>
<th>Nutrients</th>
<th>Before Migration</th>
<th>After Migration</th>
<th>Statistical Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calories (Kcal)</td>
<td>1666±509</td>
<td>1424±511</td>
<td>P&lt;0.01</td>
</tr>
<tr>
<td>Carbohydrates (%)</td>
<td>56.4%</td>
<td>60.2%</td>
<td>P=0.04</td>
</tr>
<tr>
<td>MUFA (% energy)</td>
<td>11%</td>
<td>14.1%</td>
<td>P&lt;0.01</td>
</tr>
<tr>
<td>MUFU (% energy)</td>
<td>7.2%</td>
<td>5.3%</td>
<td>P=0.001</td>
</tr>
<tr>
<td>Cholesterol (mg)</td>
<td>93.7</td>
<td>52.5</td>
<td>P=0.001</td>
</tr>
<tr>
<td>Calcium (mg)</td>
<td>1068.1</td>
<td>704.7</td>
<td>P=0.04</td>
</tr>
</tbody>
</table>

**Results:** Total of 42 subjects were studied. Mean age was 54.2±10.0 years (age range 38-71 years). The assessment was done for all the nutrients but significant difference was found out in the nutrients mentioned below:

**Conclusion:** There was significant difference in the intake of nutrients after migration. The reason behind this change can be the limited access to the basic resources and food items in the present circumstances as compared to before migration.

### 214 Serum Adiponectin Levels and Measures of Obesity in Healthy Urban Adolescents in Northern India

Departments of Medicine, Diabetology, Biochemistry, Biostatistics and Cardiology, All India Institute of Medical Sciences, New Delhi, India.

**Background and Objectives:** The relationship of adiponectin with obesity has been reported recently in various ethnic groups. We determined adiponectin levels in healthy urban Asian Indian adolescents and correlated them with measures of obesity and lipoprotein profile.

**Methodology:** This cross-sectional study included 62 male subjects (aged 14-18 years). Body mass index (BMI), waist circumference (WC), waist-hip ratio (W:HR), skinfold thicknesses and percentage of body fat (%BF), fasting blood glucose (FBG), lipid profile and adiponectin levels were measured. Values >85th percentile of the reference population were used to define obesity (BMI >23 kg/m²) and %BF (28.5). Twenty-six subjects with high BMI (group 1), and 36 subjects with normal BMI (group 2) were included for analysis.

**Results:** Mean BMI (26.4±3.1 kg/m²) and %BF (35.5±7.6) were higher in group 1 as compared to group 2 (19.5±2.9 kg/m² and 27.6±8.9, p<0.001). Similarly, mean values of WC (p<0.001) and all the skinfolds (p<0.001) were higher in group 1 than group 2. Serum adiponectin levels (µg/ml) were lower in group 1 (9.9±3.7) and in subjects with high % BF (10.5±4.4) than in group 2 (12.0±5.2, p=0.08) and in subjects with normal %BF (12.5±5.3, p=NS). Serum triglyceride levels (mg/dL) were higher in group 1 (98.2±23.4) as compared to group 2 (77.0±25.6, p=0.001) whereas, FBG and other lipid parameters were comparable in both the groups. Serum adiponectin levels showed significant negative correlations with BMI (R=0.28), %BF (R=0.28) and suprailiac skinfolds (R=0.27). Furthermore, a negative correlation (statistically non-significant) was observed between adiponectin levels and WC and W:HR.

**Conclusion:** In urban adolescent Asian Indians, lower serum adiponectin levels were associated with increasing obesity and truncal fat patterning.

### 215 Relationship of Diet with Anthropometry in Adolescents and Young Adults of Delhi

Sharma R*, Chatterjee A*, Rastogi K*, Dhingra V**, Misra A***, Vikram NK*****, Talwar KK*******, Pandey RM********, Guleria R*
Department of Diabetology*, Medicine**, Cardiology***, Biostatistics*****, All India Institute of Medical Sciences, New Delhi-110029.

**Background and Objective:** Adverse dietary profile is a major risk factor in developing obesity, dyslipidemia, hypertension, hyperinsulinaemia and glucose intolerance. In the present study we evaluated the nutritional profile of urban adolescents and young adults and correlated it with various anthropometric parameters.

**Methodology** - In this cross-sectional study subjects (age range 14-25 years) were selected from schools and colleges of South Delhi. The dietary intake was evaluated by using 24 hr. recall method for two non-consecutive days and anthropometric measurements (Body mass index (BMI), Waist-hip ratio (W:HR) and skinfold thickness at 4 sites (biceps, triceps, subscapular, supra-iliac), percentage body fat (% BF) (bioimpedence)) were obtained.

**Results** - A total of 1203 subjects (705 males and 498 females) were studied. Mean age in males was 17.3±2.2 yrs. and in females 18.7±2.4 yrs. Among males, BMI correlated significantly with the intake of saturated fatty acids (SFA), and %BF showed significant positive correlation with the intake of total fat and saturated fatty acid, and significant negative correlation of with fibre intake. In females, a
significant positive correlation of W-HR was observed with total fat and polyunsaturated fatty acids intake. It was observed that the saturated fatty acid intake in both males and females was high and intake of fibre and mono-unsaturated fatty acid was low.

**Conclusion:** The prevalence of high intake of dietary fat especially SFA and low intake of fibre among these subjects may lead to abdominal obesity and central obesity.

### 216 Relationship of Diet and Lipid Profile in Adolescents and Young Adults in Delhi.

**Chatterjee A**, Sharma R*, Rastogi K*, Dhingra V**, Misra A***, Talwar KK****, Pandey RM****, Vikram NK*****, Guleria R****

Department of Dietetics*, Medicine**, Cardiology*** and Biostatistics****, All India Institute of Medical Sciences, New Delhi-110029.

**Background and Objective:** Several studies have shown that dietary habits during childhood play an important role in the development of obesity and dyslipidemia in adulthood. Aim of this study was to assess the nutritional profile, especially fat and fibre intake, and correlate it with lipid profile in adolescents and young adults.

**Methodology:** In this cross-sectional study, subjects were selected from high schools and colleges of New Delhi. The dietary intake was assessed by 24 hr. recall of two non-consecutive days. Fasting venous blood sample were obtained to evaluate the lipid profile-(total cholesterol [TC], serum triglyceride [TG], high-density lipoprotein cholesterol [HDL-c] and low-density lipoprotein cholesterol [LDL-c]).

**Results:** Total of 1200 subjects (702 males and 498 females) were studied. A significant positive correlation of serum cholesterol and serum triglyceride levels was observed with dietary intake of cholesterol and saturated fatty acids and significant negative correlation of serum cholesterol with the fibre intake in males only. It was observed that the saturated fatty acid intake in both males and females was high and intake of fibre and mono-unsaturated fatty acid (MUFA) was lower than that recommended.

**Conclusion:** High intake of saturated fatty acids coupled with low intake of MUFA and fibre may predispose to increased prevalence of dyslipidemia and cardiovascular risk in these individuals.

### 217 Prevalence of Anaemia, Nutritional Deficiencies, Cataract and Bony Deformities in The Postmenopausal Women Living in Urban Slums


Department of Dietetics*, Medicine**, Cardiology*** and Biostatistics****, All India Institute of Medical Sciences, New Delhi-110029.

**Background and objectives:** Postmenopausal women suffer from multiple problems. Many of these are related to old age, additionally aggravated by decline in the hormonal levels due to menopause. These women living in urban slums are often neglected by their family members. The aim of the study was to evaluate the prevalence of medical problems amongst the postmenopausal women.

**Methodology:** This was a cross-sectional study in which we evaluated the nutritional, clinical and biochemical profile of the subjects. The dietary intake was assessed using 24-hour recall method. Fasting venous blood samples were obtained for plasma glucose estimation, lipid profile and haemoglobin assessment.

**Results:** A total of 162 postmenopausal women were studied. Mean age was 55.15±10.13 years. We observed that there was prevalence of multiple morbidities. The prevalence of decreased visual acuity was as high as 92.7%, which was mostly due to cataract. Bony deformities were present in 17.9% women, 14.2% women had signs of nutritional deficiencies like oedema, gum-bleeding, etc. and 10.7% women were found to be anaemic (haemoglobin level < 11).

**Conclusion:** The results show that there was high prevalence of nutritional deficiencies and decreased visual acuity, which can be corrected. Poor nutrition and physical inactivity predispose these postmenopausal women to several nutritional deficiencies and other non-communicable diseases.

### 218 Statin-Induced Ubiquinone Depletion and Its Consequences

**Dallai RK, Padhi PK, Singh S, Routray S**

P.G. Department of Medicine and Cardiology, S.C.B. Medical College and Hospital, Cuttack.

HMG CoA reductase inhibitors block the endogenous biosynthesis of an essential co-factor, ubiquinone, required for energy production. A deficiency of ubiquinone is associated with impairment of myocardial function, with liver dysfunction and with myocardial, pericardial and CHF.

**Objectives:** A comparative study of atorvastatin and atorvastatin + ubiquinone was done over a six month period to assess the side effects and potential hazardous effects in the myocardium.

**Methodology:** Fifteen patients who had dyslipidaemia and/or IHD were given atorvastatin in a dose of 10-20 mg per day. Another 15 patients were given atorvastatin + ubiquinone 10 mg for the above condition. A clinical examination with determination of NYHA class and an ECHO evaluation was done before and after treatment. Lipid profile was done at beginning, one month, three months and six months.

**Observations:** In the 15 patients receiving atorvastatin, the lipid profile was maintained at normal levels. 6/15 (40%) had myalgia and easy fatigability. 3/15 (20%) had cardiac symptoms, mainly dyspnoea. ECHO study revealed that the EF fell from 0.43±0.08 to 0.38±0.11 (p<0.05). The EDV passed from 186±80 ml to 204.2±82 ml (p<0.05). The ESV passed from 107±43 ml to 122.9±52 ml(p=ns). The NYHA class deteriorated from I to II and III. In the other 15 pts. receiving Atorvastatin+Ubiquinone there were minimal side effects and ECHO study proved to be rather mildly beneficial.

**Conclusion:** The above study proves that therapy with Atorvastatin should be combined with Ubiquinone as is the practice in the U.S.A.

### 219 Clinical and CT Scan Determinants of Cognitive Dysfunction After Ischemic Stroke

**De Souza Rosemarie, Sundar Uma, Yanave Sunil, Yeolekar ME**

LTMCH, Sion, Mumbai.

**Aim:** To determine predictors of cognitive dysfunction (CD) following ischemic stroke, factors assessed being multiplicity of infarcts, cortical vs subcortical location, volume, laterality with respect to dominance and demographic features.

**Material and Methods:** Prospective serial recruitment at tertiary hospital. Eighty-four patients at 1-3 months after stroke.

**Exclusion criteria:** Prior clinical CVA or CD prior head injury / drug addiction / parkinsonism / hypothyroidism, CT scan to r/o bleed / SOL / significant atrophy / metabolic abnormalities or obtunded sensorium. Folsteins MMSE- <24/ 30+ve CD. Specific lobar functions for frontal, temporal, parietal and occipital lobes. Routine blood tests, CT/ MRI in all.

**Results and conclusions:** Eighty-four patients were studied: 29 single infarcts and 55 multiple infarcts (8 cortical, 16 subcortical and 37 mixed). 28 / 84 patients had CD at 1-3 months (11/29 single infarcts - 37.9%, 15/55 multiple infarcts 27.2%), reflecting importance of location over multiplicity as a CD determinant following stroke. In single infarct group (29), cortical (9/15-60%), subcortical (2/14 - 14%)
showed higher CD incidence than all dominant cortical single infarcts with CD (6/15) showing CD, subcortical single infarcts with CD (2/14), had normal MMSE but frontal lobe dysfunction (judgement, abstract thinking) highlighting impaired basal ganglia-prefrontal network. CD was significantly commoner in cortical infarct group as a whole (52%), vs subcortical group (12.5%), and in pure cortical and mixed group (40% - 20/50), vs pure subcortical group (8.8%-3/16) in the multiple infarct group. Memory involvement was significantly commoner in multiple infarct group (13/15- 86.6%) compared to single infarct group (5/11-45.4%), highlighting diffuse nature of memory network. Volume range of infarct was 25 to 40cc in cortical and 3-15 cc in subcortical group. However volume range in the 2 groups with and without CD was similar highlighting location rather than volume as determinant of CD. Hypertension (60% CD had HT vs 16.6 % non CD with HT), diabetes (62% CD with DM vs 29% non CD with DM) and smoking (70.5% vs 41%) were independent predictors of CD following stroke. Age sex, hyperlipidemia and education levels did not predict CD).

220 Determining Aviator’s Fitness to Fly - A Challenge for The Aviation Medicine Physician

PK Tyagi
Institute of Aerospace Medicine, Bangalore - 560 017.

Objective: Acomedical disposition of determination of fitnessa to fly is a vital task the aerospace physician is confronted with. While every specialist does the best to assess and treat the aviator the onns of addressing the effect of flying environment on the resolved / resolving medical or surgical illness lies largely on the aerospace physician / aviation medicine specialist. The award of flying duties with or without restriction is worked out keeping in mind not only the man but also the machine (aircraft) he / she operates and the missions he is likely to be assigned. The paper discusses the pros and cons of aeromedical decision making.

Methods: A review of literature was done and the aeromedical decision-making determines the fitness of the aviator to fly, was scrutinised.

Results and Discussion: Although physicians have been associated with the pilots right from the advent of powered flight a hundred years ago, aviation medicine as a speciality came into being only in 1953. Once an aviator is grounded for a medical illness or surgical condition, he often has to undergo evaluation by specialists in internal medicine, neurology, surgery, psychiatry, ENT, ophthalmology, physiology and aerospace medicine. The key decision that he has to take is whether the illness has resolved enough or is it likely to produce symptoms which could cause total or subtle inflight incapacitation and thus jeopardise flight safety. The aerospace physician thus needs an understanding of medicine, physiology, behavioural sciences, biodynamics, psychology, neurosciences and the special senses plus the knowledge of certain engineering principles and aircraft operations. For instance, the general rule is that drugs and fighter flying do not go together. A further complication is that the medical polices and world literature both may be silent on certain illnesses and the aeromedical disposition then depends on the discretion of aviation medicine specialists. Whilst the medical opinions of specialists and subspecialists of other specialists are often given keeping in mind the abnormal physiology of the aviator in a normal environment the aviation medical specialists take a decision based on aviator’s physiology (normal or abnormal) in abnormal environment (flying).

Conclusion: The non aviation medicine specialists may consider patient care to be their primary job, while writing an opinion may not be given the importance it deserves. We the practitioners of aerospace medicine cannot afford to be casual in opinion writing as the latter impinges on the importance it deserves. We the practitioners of aerospace medicine thus need an understanding of medicine, physiology, behavioural sciences, biodynamics, psychology, neurosciences and the special senses plus the knowledge of certain engineering principles and aircraft operations. For instance, the general rule is that drugs and fighter flying do not go together. A further complication is that the medical polices and world literature both may be silent on certain illnesses and the aeromedical disposition then depends on the discretion of aviation medicine specialists. Whilst the medical opinions of specialists and subspecialists of other specialists are often given keeping in mind the abnormal physiology of the aviator in a normal environment the aviation medical specialists take a decision based on aviator’s physiology (normal or abnormal) in abnormal environment (flying).

221 Study of 25 Cases of Lightening Injuries

Mohanty CBK, Thatoi PK, Mohapatra BN, Mohanty TP, Anand KV, Augustine J
Department of Medicine, SCB Medical College, Cuttack.

Twenty-five cases of lightening injuries, who survived and could be brought to the hospital between June 1999 to June 2003 were studies. All were males between 18 to 66 years of age. Flashout phenomenon, side flash and stride potential phenomenon were considered to be the mechanism in 5(20%), 19(76%) and 1(4%) cases respectively. Entry and exit wounds were seen in 12 cases only, whereas extensive cutaneous burn were noted in 18(72%) cases. 3(12%) cases had no obvious skin burn. Extensive muscle necrosis needing surgical debridement was noted in 7(28%) who had marked elevation of creatine phosphokinase, 3 cases has gangrene (2 lower limb and 1 upper limb) needing amputation. 7 cases had elevated BUN and S. creatinine and 4 cases of these needed dialysis. Significant hyperkalemia was noted in 6 cases which was managed conservatively ± with dialysis; one case (4%) had CT evidence of intracerebral hematoma. 5 cases died during hospital stay due to sepsis and ARF, while 1 case of ICH also died.

222 Attitude of Medical Students Towards Faculty Members of Medical Colleges of Orissa

Thatoi PK, Mohapatra BN, Mohanty TP, Anand KV, Pati G
Department of Medicine, SCB Medical College, Cuttack.

Three hundred undergraduate and postgraduate students of three Medical Colleges of Orissa were interviewed between Nov. 2001 to Feb. 2003 regarding the attitudes of the faculties (non-clinical and clinical) of the three medical colleges regarding knowledge on the subject, intuitive power, teaching ability, communication ability, teacher-student relationship, doctor-patient relationship and motivating abilities. In non-clinical departments, the student and teacher relationship is good but in previous years it was better. About knowledge on the subject, teaching and communication abilities; 30% have manageable knowledge, teaching and communicating ability; 30% have average and rest below average.

In clinical departments, knowledge on the subject 90% have manageable. Intuitive power-30% have excellent. But student-teacher relationship, doctor-patients relationship, teaching and communication abilities have surprisingly deteriorated in recent years. All students claim it could be due to busy schedule of clinicians as the outdoor-indoor departments are overcrowded.

But, an ideal teacher, is yet to be found and the factors responsible for this are yet to be studied.

223 Pattern of Suicidal Attempts Seen in Southern Railway H.Q. Hospital, Chennai

Kalanidhi A, Raju GC, Usha RK, Kannama R
Southern Railway Headquarters Hospital, Perambur, Tamilnadu.

Background: Suicide is a major health problem in any developing country. The cause of a complex outcome such as suicidal behaviour actually consists of a constellation of components that act together, Which may vary from one individual to another. The epidemiological evidence consistently has shown that suicide has multiple interacting causes and risk factors that frequently co-occur.

Aim: To find out whether there are any significant suicide patterns and if so, to identify the group at risk and the potential risk factors in Southern Railway population.
Method: Analysis of the data collected in the Southern Railway Headquarters Hospital between January 2002 and December 2003, of all the cases admitted following a suicidal attempt.

Conclusion: This is an ongoing study, focussing on individual factors, familial, socio-economic interpersonal relationship issues. We are trying to identify the most common predictors and precipitators in this industrial population. Nearly a hundred cases are being analysed and the emerging pattern is discussed in detail.

224 Amyloidosis- An Experience With Ten Patients
Sharma SK, Khilnani GC, Banga A
All India Institute of Medical Sciences, New Delhi.

Object: To analyse the clinical profile in patients with amyloidosis.

Methodology: The study group consisted of ten consecutive patients admitted in the medicine wards from January 2000 to December 2002. The records of these patients were retrospectively reviewed for demographics, organ system(s) involvement, treatment and follow up. All were proved by rectal, renal or fat pad aspiration biopsy.

Results: Six were males and four females (mean age: 62 years, range: 45-64 years). Eight had primary and two had secondary amyloidosis. Two patients of secondary amyloidosis had pulmonary tuberculosis as a cause. All except one had advanced disease with extensive multisystem involvement. Major involvements were renal in four, cardiomyopathy in three, neuropathy in two, pulmonary in three and hepato-splenomegaly in three patients. All patients were started on Melphalan and Prednisolone. Four of these nine patients died within a month of diagnosis. Three were improving at six months. Two were lost to follow up. One patient had localized laryngeal amyloidosis. He required emergency tracheostomy prior to treatment. He recovered and is well on follow up.

Conclusion: Delay in diagnosis results in disease progression causing involvement of various organ system(s). Early diagnosis and prompt therapy ensures improved outcomes.

225 HIV / AIDS in The Work Place: The Botswana Scenario
Bhattacharya SK, Hone NH
Consultant Physicians, Government of Botswana.

Southern Africa continues to be the part of the continent worst affected by HIV. In Botswana, they youth (12-19 years) constitutes around 18% and 55% of the entire population (1.6 million) is being 30 years old. The proportion of this adult population living with HIV has doubled over the last 5 years (form 15% to 29%). This scourge constitute the most important threat to the health and society; it is also held responsible for slide down of Botswana from 97th to 122th in terms of Human Development Index (UNDP, 1999).

The country is plagued with high sexual activity, among the youth, multiple sex partners (among males), high incidence of teen age pregnancy, orphanism and a state of poor social education. Added to these is ever increasing negative view of young people. Among the obstacles to the effective control measures, are health care structure and staff that, because of inadequacies in training, distribution channel of drugs and laboratory facilities which are often unable to meet the increasingly complex demands of HIV/AIDS management and care regimen. The Department of Culture and Youth has undertaken a programme to educate the working class in their milieu. Apart from targeting young and old, the programme involves them in deciding on the aims and direction of the project participating actively in prevention activities, providing care and support for people with HIV/AIDS and evaluating the impact of this programme has had on them and their families.

226 Hyponatremia - A Critical Co-Morbid Factor
Deshpande Alaka, Shenoy Vasant V
Dept. of Medicine, Grant Medical College & Sir JJ Hospital

Hyponatremia and abnormalities of water metabolism are extremely common in hospitalised patients. The aims of this study were to review the epidemiology and aetiology of hyponatremia with its correlation to clinical manifestations, morbidity and mortality.

Fifty patients were studied over a period of one year in the medical wards and critical care unit of J. J. Hospital. Patients were assessed for serum sodium levels, urinary spot sodium, plasma and urine osmolality, renal function, volume status clinically and in euvolemic cases for cortisol and thyroid hormone levels. They were categorized into mild, moderate and severe groups.

Hyponatremia occurred in varied clinical settings and hence required high index of clinical suspicion. Hyperosmolality was observed in 2 patients (4%) while true hyponosmolality was recorded in 48 cases (96%). Twenty-nine patients were clinically euvolemic (58%) and 20 of these fulfilled SIADH criteria (40%). 11 patients had increased extracellular fluid volume (22%) while 8 patients were fluid depleted (16%). Serum uric acid levels were low (mean 3.0 mg%) in patients with SIADH. Convulsions were seen in 5 patients (10%) all of severe hyponatremia. Other neurological manifestations did not correlate with severity. Mortality rates were 44% (22 patients) and had no correlation with the severity; but the severity of hyponatremia added to the morbidity. The average time taken for correction was 15 hours for mild cases, 44 hours for moderate and 64 hours for severe hyponatremia. Five patients (10%) were treated with demeclocycline while 12 patients (24%) required hypertonic saline. Five patients (10%) remained incompletely corrected. No adverse events were observed during correction.

Conclusion: SIADH is the most common cause of hyponatremia in hospitalised patients and occurs more frequently above 50 years of age. Hypourcemia is a reliable indicator of SIADH. Severity of hyponatremia correlates with morbidity but not the mortality.

Nephrology

227 Gitelman’s Syndrome
Chowta KN, Prabhu MV, Shetty MA
KMC Hospital, Attavar, Mangalore - 575001.

Gitelman’s syndrome is primarily renal tubular hypokalemic metabolic alkalosis with hypocalciuria and magnesium deficiency, a benign disorder, inherited as autosomal recessive traits.

Case Report: A 57-year-old female was admitted to our hospital with complaints of generalized weakness, fatigue, palpitations and vomiting since two weeks. Patient was on treatment for hypertension and ischemic heart disease. Patient also gave the past history of bronchial asthma. Diabetes mellitus was diagnosed during laboratory evaluation. Patient was not on diuretic therapy. No history of similar illness in the family and there was no history of parental consanguinity.

On examination, the blood pressure was 160/96 mm Hg and pulse rate was 78 beats per minute. There was niether neurological deficit nor proximal muscle weakness. ECG showed ischemic changes.

Laboratory investigations showed low serum potassium, low serum sodium, low serum chloride, low serum bicarbonate and low serum magnesium. Blood pH was 7.58. There was also low urinary calcium, normal urinary sodium, normal urine potassium and high urinary magnesium level. Thyroid function tests and serum cortisol level were normal. Ultrasound of the abdomen did not reveal any abnormality.

Patient was treated with oral magnesium and potassium