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The Relationship between Hematological Indices and Subclinical Atherosclerosis in Hypertensive Adults in Southern Nigeria

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Background: Atherosclerosis is a primary cause of cardiovascular morbidity and mortality. Atherosclerosis is characterized by infiltration of inflammatory cells from circulating blood. Blood cell activation could play an important role in subclinical atherosclerosis. Carotid intima-media thickness (CIMT) is an established tool for the detection and assessment of subclinical atherosclerosis.

Aim: We analyzed the relationship between blood cellular markers and quantitative measures of carotid wall atherosclerosis as determined by CIMT in hypertensive patients attending the cardiology clinic of the UPTH.

Methods: 144 Hypertensive subjects and 72 age and sex- matched controls were recruited. Their waist circumference, body mass indices and fasting lipid profile were determined. The complete blood count of the entire study population was also determined. Diabetics were excluded. CIMT was measured in all study subjects using standard protocol. Results were subjected to linear, multiple, and logistic regression analyses.

Results: The mean white cell count among the hypertensive subjects was significantly higher than that of the control group ($p=0.029$). The mean erythrocyte sedimentation rate (ESR) of the hypertensive subjects was also significantly higher than that of the controls ($p<0.001$). The subjects with elevated CIMT had significantly higher white cell counts than their counterparts with normal CIMT ($p=0.005$). The individuals with increased CIMT had significantly lower monocyte count than those with normal CIMT ($p=0.004$). Univariate linear regression showed that total white cell count and monocyte count were associated with increased CIMT. Binary logistic regression showed that the monocyte count was predictive of carotid atherosclerosis. An ROC curve analysis showed that a cutoff value for WCC of $3.55 \times 10^9/L$ yielded a 93% sensitivity and 94% specificity for predicting the presence of carotid atherosclerosis in these hypertensive patients.

Conclusion: A significantly positive association between white cell count and atherosclerotic changes in the vascular walls of a hypertensive Nigerian adult population was observed.

Key words: Hematological indices, subclinical atherosclerosis.





NMA/ABS/2017/02

Oral Rehydration Solution Use Amongst Mothers' of Children With Diarrhoea Seen at The Diarrheal Treatment Unit of The University of Port Harcourt Teaching Hospital, Nigeria.

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Background: Oral rehydration solution (ORS) has been a life-saving remedy in the home and hospital management of dehydration especially in under-five children. Its improper use has however resulted in morbidity and mortality in children.

Aim: To determine the proportion of mothers who used ORS properly for their under-five children with diarrhoea.

Methods: A prospective study was done over a 3-month period and mothers of under-five children with diarrhoea seen at the diarrhoea treatment unit of UPTH interviewed. A structured questionnaire was used to obtain information from mothers and data analysed using SPSS version 20.0.

Results: A total of 90 mothers were interviewed. 86.7% of respondents were of high socioeconomic class. 51.1% of children with diarrhoea were between 6-15 months of age. 84 (93.3%) respondents had heard about ORS while 64.4% had actually used it. Only 40 (44.4%) respondents reconstituted ORS appropriately and used its contents within 24 hours.

Conclusion: There is need for increased awareness amongst mothers of under-five children on the proper use of ORS to prevent debilitating complications.

Key words: Oral rehydration solution, diarrhoea, under-five



NMA/ABS/2017/03

Correlation of Depressive Illness with Academic Performance among Medical Students at the University of Port Harcourt

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Background: The rising prevalence and burden of Depression among all age groups including medical students have continued to constitute enormous concern worldwide. Depression has been associated with cognitive impairment and may impair academic performance.

Aim: To determine the relationship between depression and academic performance among medical students at the University of Port Harcourt.

Methods: This descriptive cross-sectional study gained ethical approval. Stratified random sampling method was used to select the subjects. A well-structured open ended self-administered socio-demographic questionnaire was administered to the students. The Zung Self Rated Depression Scale was used to assess the depression status of each respondent in conjunction with the Diagnostic Statistical Manual, Version Five (DSM V). The data were analysed using descriptive and analytical methods.

Results: The prevalence of depression among the medical students was 5.3%. Fourteen students (4.6%) were mildly depressed while only two respondents had moderate depression. Academic performance was generally poor among the medical students with depressive illness compared to those without depression and was worse with increasing severity of depression ($p=0.004$).

Conclusion: Depression does occur among medical students at the University of Port Harcourt and significantly affects academic performance.

Key words: Depression, Academic Performance, Medical Students, University of Port Harcourt



NMA/ABS/2017/04

Hepatic Crisis in Sickle Cell Anaemia – A case report

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Background/Objectives: To report a case of hepatic crisis in a 15-year old male with sickle cell anaemia to highlight its presentation, diagnosis and management.

Case Report: A 15-year old male, known Sickle cell anaemia patient presented with a 6-day history of worsening jaundice, 5 day history of fever and 4 day history of abdominal pain and vomiting. On examination, he was deeply jaundiced with a greenish tinge, in painful distress with marked right hypochondrial tenderness and hepatomegaly of 12cm. (compared to no palpable liver when he was seen a week prior to presentation). His haematocrit done was 13% (compared to a haematocrit of 26% a week to presentation). Serum aspartate and alanine transaminases were elevated. HBsAg and HCV were negative. He also had conjugated hyperbilirubinemia. Abdominal ultra sound scan showed diffuse hepatomegaly. He was managed with serial blood transfusions. He also received antibiotics and analgesics. He made rapid clinical recovery and was discharged home after 3 days on admission.

Conclusion: This case is being reported to provide insight into the presentation, diagnosis and management of this condition. It is especially useful for clinicians who are not familiar with the intra hepatic vaso- occlusive syndromes in sickle cell disease.

Key words hepatic, Crisis, Sickle cell anaemia

NMA/ABS/2017/05

Histopathological Effects of Cannabis on the Heart and Brain of Rats

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Background: The central nervous system (CNS) physiological effects of cannabis have been extensively studied. However, very little is known about the histopathological changes in the heart and brain of cannabis users.



Aim: The study aimed to investigate any cannabis dose dependent toxic effects on the heart and brain of rats.

Methodology: Thirty (30) rats with average weights 150-200g were divided into groups A (Control), B, C and D. They were all acclimatized for 5 days and fed on the same feed and water. Groups B to D were given different doses of cannabis—with Group D— the highest dose—40mg/kg/day, Group C—20mg/kg/day and Group B—10mg/kg/day for 28 days. They were sacrificed on days 7,14,21, and 28. The organs were harvested for histology.

Results: The animals were observed to have increased agitation, restlessness and violent tendencies within 20-30 minutes after each administration which was dose dependent. No structural changes were observed in the heart while in the brain, dose dependent inflammatory changes with infiltration of acute inflammatory cells were observed.

Conclusion: Results suggest that in addition to issues of intoxication, cannabis can also cause histopathological damage to the brain. This may be important while counseling cannabis addicts.

Key Words: Histopathology, cannabis, heart, brain, rats.

NMA/ABS/2017/06

Removal of Locked Interlocking Tibial Nail with the Aid of a Bolt

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Background: Intramedullary nailing has been accepted as a safe and effective method to treat diaphyseal fractures. Intramedullary nail removal can be indicated in the event of infection, non-union, deformity or refracture requiring fixation. After bony union, some have removed intramedullary nails as a routine or on request by the patient. Removal of an intramedullary nail would require the extraction system of the inserted nail to be available. Sometimes the system is not available, and an alternative system would have to be utilized.

Aim: To report removal of a tibial interlocked nail utilizing a bolt in the absence of an appropriate fitting extraction system.



Case Report: A 72-year-old male, had an interlocking Surgical Implant Generation Network (SIGN) intramedullary nail inserted for a left tibial diaphyseal fracture which he sustained in 2013 during a road traffic crash. In September 2016, the patient requested for the nail to be removed in a private clinic in Port Harcourt. The extraction system for the SIGN nail was not available and an alternative interlocking system was arranged. However, on table, the thread of the tip of the extraction system did not fit that of the SIGN system. The idea of fitting a bolt to the proximal tip of nail was conceived and this was screwed unto the tip of the nail. With the aid of a plier applied to the bolt and a mallet, the nail (8mm x 280mm) was extracted.

Conclusion: In the absence of conventional extraction system for an interlocking nail, an appropriate size bolt can be applied to the threaded proximal tip of the nail and used for the nail extraction.

NMA/ABS/2017/07

Evaluating Magnetic Resonance Imaging Findings in the Cervical Spine of Patients with Neck Pain in Port Harcourt, South-South, Nigeria

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Background: Cervicalgia is one of the potentially disabling musculoskeletal disorders worldwide with enormous impact on individuals, health care and jobs.

Aim: The purpose of this study was to establish the pattern of Magnetic Resonance Imaging (MRI) findings in patients presenting with neck pain in Port-Harcourt (PH) and relating these with patients' age, sex, BMI and occupation.

Methodology: MRI sections of the neck of 130 patients who had neck pain were taken in the Radiology Units of University of Port Harcourt Teaching Hospital and Transview Diagnostics centre in PH. The findings and demographic data were obtained. The images were acquired using a 0.2 Tesla open magnet Siemens Magnetom Concerto 1994 model and a 0.36Tesla Mindray open bore 2010 model, respectively.

Result: Participants were from 19-76 years of age with a mean age of 55.4±11.3 years. Males were 75.4% while females were 24.6%. 88.5% had abnormal findings while 11.5% were normal. Findings include spondylosis, intervertebral disc degeneration, disc herniation, disc bulge, cord compression, spondylolisthesis, bone marrow change, nerve root compression, spinal stenosis, and annular tears. Statistical analysis was done. Spondylosis (67.7%) was the commonest finding.



Conclusion: Spondylosis is the most common cause of Cervicalgia in our study while the second most common cause was intervertebral disc degeneration.

Key words: Cervicalgia, MRI, Port Harcourt, cervical spine, spondylosis

NMA/ABS/2017/08

A Ten-Year Review of Obstructed Labour at the University of Port Harcourt Teaching Hospital

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Background: Obstructed labour is a major cause of Maternal/Perinatal Mortality. This is an indication of poor obstetric care.

Aim: The study was carried out to establish the incidence of obstructed labour at the University of Port Harcourt Teaching Hospital as well as the severity of its complications.

Methodology: A ten-year retrospective analysis of all cases of obstructed labour at the University of Port Harcourt Teaching Hospital was carried out between 1st January 2003 and 31st December 2012. The records of the total deliveries during the period under review were obtained to serve as denominator, parity, age, booking status of affected patient's and cause of the obstructed labour. The Information was analyzed using SPSS version 20.

Results: During the period of study, there were 19, 543 deliveries and of which 684 (3.5%) were for obstructed labour. The mean age was 25 ± 2 years 428 (65.2%), the modal Parity was Para 0 424 (62%). The commonest cause of obstructed labour from the study was cephalopelvic disproportion 308 (45%). Un-booked patients constituted 473 (69.2%) of the cases of obstructed labour. The most common means of intervention was by caesarean section 554 (81%). The commonest complication found in this study was sepsis affecting 622 (91%) of cases. The maternal mortality ratio of obstructed labour was 810.80 per 100,000 live births. The Perinatal mortality ratio was 250 per 1000 birth.

Conclusion: Obstructed labour is a preventable cause of adverse pregnancy outcome. Antenatal/intrapartum care are paramount in the prevention of obstructed labour.

Key words: Obstructed labour, UPTH, Maternal/Perinatal mortality



NMA/ABS/2017/09

Influence of Blunt Versus Sharp Expansion of Uterine Incision on Degree of Intraoperative Blood Loss at Caesarean Section

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Background: Caesarean section is the most common major operation performed on women. Although caesarean section is much safe today, there are still major intra operative and post-operative complications. Haemorrhage is one of the short term morbidities following caesarean section and may lead to maternal mortality.

Aim: To determine which method of expansion of uterine incision at caesarean section (sharp and blunt) is associated with a reduction in blood loss.

Method: A prospective randomized study conducted among booked antenatal women admitted in antenatal ward for elective caesarean section at the University of Port Harcourt Teaching Hospital (UPTH) over a period of nine months. The eligible 354 women (177 for each group) were counseled for participation and informed consent obtained. A profoma was prepared for each participant. Blood loss estimation (EBL) was undertaken using volumetric and gravimetric methods. The data was collected and analyzed using EPI INFO statistical software.

Results: The mean parity in blunt group was 1.4 and 1.5 in sharp group. The mean gestational age for both groups was 38.1 (SD 1.0) weeks. The mean EBL during the study period was 594.4 (SD 167.0) mls. The mean EBL for sharp group was 602.3 (SD 176.6) mls and 586.4 (SD 157.3) mls for blunt group. The mean EBL for women in blunt group who had uterine extension was 889.3 (SD 100.3) mls while that of sharp was 944.4 (SD 190.9) mls.

Conclusion: Caesarean section is a common obstetric operation and needs to be made as safe as possible. Although sharp expansion resulted in more blood loss, the difference is not statistically significant. The difference in blood loss following inadvertent extension between the two groups is statistically significant.

Key words: Caesarean section, blunt and sharp expansions, term pregnancies, estimated blood loss



NMA/ABS/2017/10

Are Obstetric Complications Involved in the Aetiology of Childhood and Adolescent Neuropsychiatric Disorders? A Study of UPTH

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Background: Obstetric complications tend to affect the immature brain which may cause or predispose to neurological or psychiatric disorder(s) in childhood or adolescence.

Aim: To determine the pattern and prevalence of childhood and adolescent neuropsychiatric disorders associated with obstetric complications in UPTH.

Methodology: All cases of childhood and adolescent psychiatric disorders with established and reliable history of obstetric complications seen from January, 2009-December, 2016, were studied. Diagnoses were made by Consultant Neuropsychiatrists using the DSM IV criteria. All cases with family history of mental illness were excluded from the study. A study questionnaire was also administered to the mothers of affected children. The results were analysed using GraphPad Prism statistical software.

Results: In all, 2182 cases of various childhood psychiatric disorders were seen within the period under study. Out of this figure, 408 (18.7%) ($p=0.003$) were associated with history of obstetric complications. The most prevalent neuropsychiatric disorder was substance abuse with 17.6%, followed by depression 16.9% and then anxiety disorder 14.9%. Difficult delivery (25.0%) was the most reported obstetric complication followed by complications of caesarean section with 18.6%.

Conclusion: There is need to pay more attention to steps that are necessary to prevent obstetric complications during pregnancy, labour, delivery as well as the immediate post partum.

Key Words: Childhood and Adolescent, Neuropsychiatric disorders, obstetric complications, Aetiology, UPTH



NMA/ABS/2017/11

Rising Reproductivity in Advanced Age: The Internist's Involvement

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Background: As the world ages, so is there advancement in knowledge, science and technology which has improved the quality of life of individuals, thus leading to an increase in life expectancy in almost all the regions of the world. Reproduction in elderly females is on the rise due to the acceptability of assisted reproductive technology in treatment of infertility. This is likely to result in an increase of interventions by the internist in this age group during pregnancy.

Materials and Methods: Journals, newspaper and magazine publications of case reports of women who were 60 years and above who gave birth to live babies worldwide were analyzed. An internet based search of credible websites was also done to verify information and analysis of various factors were done.

Aim: To review the involvement of the internist in the management of advanced age pregnancy and its outcome

Results: There were 60 persons aged 60 years and above gathered from the publications, 96.7% of these patients had assisted reproduction. The commonest age range was 60-64 years. Primary infertility without children between the couple was the cause of seeking in vitro fertilization in 50% of cases. 10% of the pregnancies were associated with medical complications such as diabetes and hypertension. 57.7% of the documented birth weights were low birth weight.

Conclusion: Internists are important in the management of pregnancy in women of advanced age.

Key words: Advanced age, Elderly, Fertility, Internist, Reproduction



NMA/ABS/2017/12

Second Trimester Spontaneous Uterine Rupture in a Woman with Previous Uterine Myomectomy

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Background: Spontaneous uterine rupture is a life-threatening obstetric emergency associated with a high maternal and fetal morbidity and mortality. Spontaneous uterine rupture in early pregnancy is very rare and occurs usually in scarred uterus. Pregnancies that occurred after abdominal and laparoscopic myomectomy are high risk for uterine rupture. Obstetricians must consider this diagnosis when a pregnant woman present with acute abdomen in early pregnancy.

Methods: The case note of the patient was retrieved and the management reviewed. Relevant review of the literature on the subject was also done.

Result: She was a 38-year old nullipara who presented at the accident and emergency unit of Braithwaite Memorial and Specialist Hospital at 15 weeks gestation with generalized abdominal pain and distension. There was a history of abdominal myomectomy six months prior to a successful invitro fertilization. She had emergency laparotomy and repair of ruptured uterus. Ruptured uterus was at the fundus and an intact gestational sac floating was seen in about 1.5L haemoperitoneum. She received 4 units of blood. She did well postoperatively and was discharged home in good clinical state.

Conclusion: Uterine rupture is rare and potentially catastrophic event. The case shows scar rupture as a risk factor for spontaneous uterine rupture in the second trimester. Clinical signs of uterine rupture in early pregnancy are non-specific. Therefore, early diagnosis of uterine rupture after myomectomy can prevent a maternal mortality.

Key words: Uterine rupture, myomectomy, mid-trimester, maternal morbidity, blood loss.