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Orbital Index of Adult Igbos and Adult Ogonis (Aged 17-70 years)

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This study was aimed at comparing radiologically the differences in orbital index, orbital height and orbital width between Ogonis and Igbos. The parameters were measured from radiographs obtained from Radiology department of University of Port Harcourt Teaching Hospital and General Hospital, Bori, Ogoni, all in Rivers State, Nigeria. The orbital height, width and index of 389 anteroposterior skull radiographs of adult Igbos and adult Ogonis, aged between 17 – 70 years were analyzed retrospectively. Results showed that mean orbital height of male Igbos was higher (3.958 ± 0.59) than female orbital height (3.781 ± 0.57), the width of the males (4.651 ± 0.60) was also higher than the females (4.333 ± 6.69). For the Ogonis, the mean height was higher in males (3.478 ± 0.388) than females (3.343 ± 0.297).The width was also higher in males (3.936 ± 0.46) than females(3.733 ± 0.33). Female Igbos had a higher mean orbital index (87.28) than male Igbos (84.91). The female Ogonis also had a higher mean orbital index (89.32) than male Ogonis (88.24). The test for significance between the adult Igbos and Ogonis aged 17-70 years showed that there are statistical significant differences between the two ethnic groups. The result of this study also showed that adult Igbos and Ogonis belong to the mesoseme group. The test for significance between adult male Igbos and adult male Ogonis showed that there is statistically significant difference between the males of the two ethnic groups. The same test was also carried out for female Igbos and female Ogonis, and the result showed statistically significant difference between the females of the two ethnic groups. These data can be useful in forensic anthropology and craniofacial surgery.

Key words: Orbital Index, Orbital Height, Orbital Width, Igbos, Ogonis

Histoenzymic Evaluation of the Prontal Cortex of Young Wistar Rats Following Prenatal Nicotine Administration

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Prenatal exposure to nicotine is increasing being demonstrated as a critical factor associated with neurological alterations and neurobehavioural problems seen in the offspring of smokers. The current study, therefore, aimed at determining the effects of nicotine on the frontal on the frontal cortex of animal models during the process of development. Adult female Wistar rats were mated, after determination of their oestrous cycle. Pregnancy was confirmed and the pregnant rats were grouped into two. Group 1 received 0.1 ml of normal saline (control) while Group 2 received 0.1 ml of 0.06 mg/kg nicotine. Each group was subdivided into 3 (A,B,C) according to Trimester, and treatment was intraperitoneal, for a period of 6 days within each from birth. At postnatal day 35, five (5) litters from each subgroup were sacrificed by cervical dislocation. The skull was opened and the brain removed; the brain was weighed, after which the frontal cortex was excised and weighed. It was immediately placed in chilled 0.25 M sucrose solution, homogenized, centrifuged, and the supernatant was placed in ice packs, for onward quantitative analysis of the activities of alkaline phosphates, lactate dehydrogenase and glucose-6-phosphate dehydrogenase. Part of the frontal cortex was fixed in 4% paraformaldehyde for histological tissue preparation. Prenatal administration of nicotine during different trimesters led to various forms of alterations in both tissue enzymes and cytoarchitecture of the frontal cortex, which probably could affect cortical functions.

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Perception and Challenges of the Applications of Modern Information Communication Technology (ICT) Tools by Students of Anatomy Amongst Medical Schools in Nigeria

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Information and communication technology (ICT) is a forces that has changed many aspects of the way we live including education. The use of ICT in education lends itself to more student-centered and is generally believed to improve learning and students performance, the objective of this study therefore was to view the perception and awareness of students to the use of ICT in the department of Anatomy in their schools. This was a descriptive cross-sectional study with sample population consisting of medical/anatomy students from various medical schools in Nigeria. A total of three hundred structured questionnaires were distributed to students who participated at the 12th Annual Conference of the society of Experimental and Clinical Anatomist of Nigeria (SECAN) held in the international conference centre university of Technology Owerri Imo South Eastern Nigeria, from the 24th to 26th March, 2012. Out of which 250 returned the questionnaire and were included in the study. Analysis was done using simple descriptive statistics and presented as percentage and frequency tables. Results showed that 212 respondents were 16-26years; 28 were 27-37, 240 were single while 10 were married. 138 were females and 112 were males. All the respondents were Christians 225 (90%) of respondents have heard of ICT. 198(79.2%) agreed to the use of ICT in their school, the most common uses in schools included internet based registration of courses 144(23.1%), solving of the net at Internet café 111(17.8), power point lecturing 88(14%), A total of 210(91.5%) thought ICT leads to better understanding of lectures, 225 (95.7) said it leads to better class participation and interaction, 237(98.9%) were of the view that it makes it easy to demonstrate and understand diagrams. Many thought that poor and irregular electricity supply, 244(22.9%) and inadequate ICT equipment, 172(16.2%) were amongst others factors that discouraged ICT usage in Anatomy amongst medical schools in Nigeria. In view of its many benefits there is need to improve infrastructure and encourage ICT usage in Anatomy department amongst medical schools in Nigeria.

Keywords: Information Communication Technology (ICT), students, Anatomy.

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Developing Lawsonianinermis (Henna) Stain as A Natural Alternative to Eosin in Delineating Basic Tissue Components in Histological Preparations

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The efficacy of an indigenous herbal dye, Lawsoniainermis commonly known as Henna was evaluated as a histological stain in animal tissues. This study tested the ability of Henna stain to delineate cellular components of tissues obtained from the Wistar rat. Henna stain prepared as a mixture of the aqueous crude extract of Lawsoniainermis leaves dissolved in 5% aqueous ethanol and mordanted with potassium alum was used to stain paraffin embedded serial sections (5µm) of tissues (skin, liver, kidney, intestine, testis, lungs and brain) fixed in 10% buffered formalin. Henna stain gave reproducible, stable results and demonstrated affinity for only basic tissue components mainly cytoplasm and connective tissue which stained brown. Nuclei did not pick up the stain suggesting that Henna is an acidic/cytoplasmic stain with is colouration attributable to the resinoid fraction called 'Lawsone'. When used as a counterstain to Haematoxylin it showed marked contrast and comparable staining to Eosin in delineating tissue parenchyma and in brain section, it stain in mapping out the cortical layers of cerebrum and cerebellum but had added advantage in demonstrating glial cells, axonal projections and neuropil. These preliminary results provide a basis for the development of Henna stain as a non-toxic, eco-friendly and cheaper alternative to synthetic stains for histological preparations particularly for developing countries.

Effects of Salt-Loadig Hypertension on Pain Perception Inrats

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There is on-going controversy on the effect of experimentally induced hypertension on pain perception. The effect of salt-loading induced hypertension on pain was studied in male rats. Eighteen male sprue-Dawley rats (160-280g) were divided into two groups. Group A (n=6) was treated with normal feed diet (control), while group B (n=12) was treated with 8% salt-loaded diet for ten weeks. Blood pressure was measured via femoral cannula with Grass Polygraph at onset of the treatment in six of the group B rats, and 10 weeks after normal feeding and salt loaded feeding in group A and remaining 6 group B rats respectively. Thermal and chemical pain test were assessed using tail immersion test (tail flick) and formalin test pain paradigms at onset of salt loading diet and after ten weeks of salt loading. Chronic administration of salt-loading diet caused significant increase ($p<0.001$) in systolic blood pressure, diastolic blood pressure and mean arterial blood pressure. Moreover, salt-loading induced hypertension was found to significantly reduce pain sensitivity in tail-immersion test ($p<0.001$) and in early and late phase of formalin test ($p<0..01$). however, the reduction in pain sensitivity was higher in the late phase (94.8%) than in the early phase (56.8%) of the formalin test. The present study suggests that high salt-loading induced hypertension also causes hypoalgesia or reduced pain perception in rats and that the reduction in pain perception is due more to reduction in inflammatory response.

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Anatomical Site of Vascular Malformations In Children In Port-Harcourt

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Haemamgiomas are the commonest vascular malformations, it occurs more in the head and neck region. The incidence of vascular malformation is not known in our environment. Both sexes are involved. Arterio-vascular malformation are rare but very difficult lesion to treat in our Environment.

To study the types of vascular malformation in children in Port-Harcourt Anatomical location of the malformation, Sex prevalence, Surgical indications. 81 consecutive vascular malformation were inclined in this study, the patients socio demographic features were recorded age, sex, site, family history, conservative or surgical treatment. Haemangioma ˉ77, Arterio-venous malformation ˉ4, More than 80% of the haemangiomas occurred in the head & neck region. Intra-abdominal haemamgiomas were rare. Arterio-venous malformations involve the lower limbs mainly. Most haemamgiomas require conservative treatment and involve the head and neck region mainly Arterio venous malformations are difficulty to treat in our environment.

Tomato Supplement Ameliorates Casteration-Induced Oxidative Stress In Rat

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Castration has previously been shown to induce oxidative stress. Previous studies had shown tomato as a potent anti-oxidant which reduces oxidative stress in many disease conditions. However, the likely role of tomato ameliorate castration-induced oxidative stress has not been studied and was of interest to us. The present study looked into the effect of tomato supplement on the plasma level of antioxidant enzymes like superoxide dismutase (SOD) and catalase, level of lipid peroxidation rate by estimating the Malondialdehyde (MDA) and other parameters like weight gain and blood glucose levels in castrated and sham-operated rats. Castration did not affect weight gain and plasma catalase level; increased plasma glucose and MDA levels and decrease plasma SOD level. Tomato supplementation reduced weight gain and had no effect on castration-induced hyperglycemia. It also increased plasma SOD and catalse, and decreased plasma MDA level in the castrated rats. These findings suggested that tomato supplementation might have important therapeutic potential as an anti-oxidant during castration and a weight regulator in castrates and non-castrates.

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The Cranial Capacity of the Ogoni Ethnic Group in Rivers State, Nigeria.

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In this work, a three (3) months research was carried out to determine the cranial capacity among the Ogoni people of Rivers State, Nigeria and its relationship with sex, height, weight, age and BMI. The sample size of the present study comprises of 527 living subject s (269 males and 258 females) between the ages of 14-20 years old. The anthropometric estimation of the cranial capacity was carried out measuring the linear dimension of the heads. Maximum head height was determined by measuring the distance from the glabella to the inion using the measuring tape. Maximum head width as determined by measuring the distance between the two perietal eminence using spreading caliper. The auricular height was determined by measuring the distant from the external acustic meatus to the highest point of the vertex using auricular head spanner. The cranial capacity was calculated using the formula. MALE: 000337(L - 11) (B - 11) (HT -11) ± 406.01; FEMALE: 000400 (L -11) (B -11) (HT - 11) ± 206.06. Interviews and observations were the research instrument used to determine the sex, age and tribes. The body height and weight were measured using lower height board and weighing scale respectively. Body mass index (BMI) was calculated by dividing the weight in kilogram by square of the height in metres. The results obtained were analyzed. The mean and standard deviation of the cranial capacity in this present study for both males and females were: Male; 1410.832±162.405cc (Range 1243.280-1568.510cc); Female: 1443.212±154.283cc (Range 1261.620-1630.610cc) This difference was significant ($p<0.05$) this investigation shows that cranial capacity is slightly higher in females than in males among adolescent Ogoni's. A positive correlation was found between cranial capacity and age, body weight, body hight and BMI. This result shows a variation from the results obtained by a similar studies in native Fars groups in South-East of Caspian sea boarder (North of Iran), Asia were cranail capacity is higher is males than in female. The cranial capacity of this study is also higher than those obtained in native Far (Asia). Males: 1369±142cc and female: 1227.2±120cc. This difference is due to racial factor. This study has confirmed that significant difference exits in biomedical data between different populations. Therefore, biomedical decisions based on data obtained from other races might prove inappropriate in our environment. There is need for us to generate adequate local date to develop our biomedical and anthropometric data bank so that to ensure that our biomedical decisions are appropriate for our local population.

KEY WORDS: Anthropometry, Auricular Height, Body Mass Index, Cranial Capacity, Head Length, Head Width, Ogoni, Nigeria, Rivers State.

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Medial Malleolar Height in Male and Female Subjects in Jos, Nigeria

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Anthropometry continues to be relevant to modern studies in anthropology and is becoming increasingly useful in advanced human anatomy but studies are still scanty in Nigeria or indeed in Africa. In Nigeria as in order countries with large ethnic populations it is useful in determining ethnographic patterns of origins. We have studied the medial malleolar heights, which is the vertical distance measured from a platform to the distal tip of the medial malleolar, in a mixed population of Nigerians in Jos. Data obtained from 250 subjects included age, height, weight and medial malleolar heights (MMH) in male and female subjects. The measurement of MMH and age, height of male and female, weight of male and female subjects were subjected to correlation analyses using Pearson's product moment correlation r. Mean values of parameters studied and standard deviation are as follows- for male (n=128) age was 22.9±6.4 years with range 18-27 years; height 1.73±0.09 m, range 1.53-1.85cm; weight 61.74±5.72 m, range 46-76kg. mean values and standard deviation for females (n=122) are-age 23.01±6.4, range 19-25 years; height 1.62±0.06; range 1.53-1.75m; weight 59.0±9.28, range 43-79g. MMH for male mean is 7.07±0.68cm, range is 5.5-8.5 cm. mean MMH for female is 5.37±0.93cm, range 4.0-7.4cm. we found positive correlation with height of male subjects ($r=0.85$; $p<0.01$); weight ($r=0.44$; $p<0.02$). For female ($r=0.3$; ns), weight ($r=0.26$; ns) the correlation is not so strong. Correlation for age did not show any relationship or trend. It is concluded that MMH is positively correlated to height and weight in male subjects but not in female subjects and also not correlated with age. The relevance of foot statistics in humanbiology makes this an important finding.

The Hepatoprotective Effect of Black Seed (Nigella Sativa) on Carbon Tetrachloride Induced (Ccl4) Liver Toxicity in Wistar Rats

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The aim of this study was to investigate the effect of N. Sativa oil on carbon tetrachloride (CCl4) – induced liver damage using 35 adult Wistar rats. The experimental animals weighed between 130-180g and were randomly divided into 7 groups. Each group comprised of 5 rats. Group 1 rats were administered normal Saline (volume per body weight) orally for 2 weeks. Group 2 rats were administered olive oil 4ml/kg body weight orally for 2 weeks. Group 3 rats wre administered 2ml/kg body weight of N. Saliva oil orally for 2 weeks. Group 4 rats were administered 4ml/kg body weight of N. Sativa oil orally for 2 weeks. Group 5 rats were administered 4ml/kg body weight CCl4 (30% CCI4 in 70% olive oil) orally for 2 weeks, Group 6 rats were administered 2ml/kg body weight of N. Sativa oil plus 4ml/kg body weight CCI4 (30% CCl4 in 70% olive oil) orally for 2 weeks. Group 7 rats were administered 4ml/kg body weight of N. Sativa oil plus 4ml/kg body weight CCl4 (30% CCl4 IN 70% olive oil) orally for 2 weeks. Histopathological or biochemical changes were not evident following administration of N. Sativa alone. Serum levels of aspartic transaminase (AST), L-alanine aminotransferase (ALT) and alkaline phosphatise (ALP)was significantly increased in animals treated with CCL4 when compared to the control group. The CCL4 and N. Sativa group (6 and 7) showed decrease in liver enzymes comparable with the control. Antioxidant activity in the blood serum was estimated by determining the activities of superoxide dismustase (SOD), catalase (CAT), thiobarbituric acid reactive substances (TBARS) and reduced glutathione (GSH) levels.

CCL4 caused elevated level of TBARS and marked depletion of liverendogenous antioxidant enzymes. N. Sativa treatment positively protected the alterations in these biochemical variables in the CCL4 + N. Sativa treated rats. N. Sativa markedly reduced elevated TBARS and significantly increased the levels of antioxidant enzymes. The histological examination of theliver tissues in group 1,2,3 and 4 showed normal liver architecture. The histology of the liver in group 5 showed wide spread inflammation, oedema, vascular congestion, dilated sinusoidal spaces. N. Sativa oil showed hepatoprotection on histological section of the liver in groups 6 and 7. This study also revealed normal nuclear morphology with central location of nuclei except in group 5 which showed abnormal nuclear morphology with peripherally located nuclei, in conclusion, our results demonstrated that N. Sativa through its antioxidant activity effectively protects CCL4 induced livertoxicity.

Anatomo-Radiological Study of the Pelvis of the Ijaws Using Ischiopublic Index

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For anthropological and medicolegal reasons, sex is usually identified from the human skeleton. The hip bone is normally used, and the ischiopubic index is one of the best parameters used for determination of sex. This study was carried out to determine the pubic length, ischial length and ischiopubic index of the Ijaw people of Nigeria. Anterioposterior radiographs of adult pelvis (age range, 18-75 years) were evaluated. Five hundren and eighteen (518) radiographs (259 males and 259 females) were those of the Ijaws of Nigeria. The morphological measurements were pubic length, ischial length and ischiopubic index. The mean values of pubic length, ischial length and ischiopubic index of male Ijaws in South-South Nigeria were 74.99mm, 85.03mm and 88.65 respectively while those of their females were 84.48mm, 79.52mm and 106.45 respectively. The mean pubic length was significantly longer in females than males in the population ($p<0.05$). the mean ischial length was significantly higher in males than in females ($p<0.05$). The ischiopubic index of the females was significantly higher than that of the males. Using the radiographs, sex could be assigned to 32.43% of males and 31.66% of females when using the formulae (Mean ± 3SD). But then, using the formulae (Mean ± 2SD), sex was assigned to 68.72% of Ijaw males and 66.79% of Ijaw females. When these results were compared with other races, there were racial differences. Thus, this study is important as it has provided the necessary data for the Nigerian population under investigation. The data is recommended to obstetricians, physical anthropologists, and forensic scientists.

Keywords: Anthropologists, Ischial length, Ischiopubic index, Nigerians, Pubic length.

A Baseline Study of the Aesthetic Angles Among the Ibo and Yoruba Ethnic Groups of Nigeria

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Ethnic and racial differences in the facial structure is a well accepted fact. This study intends to document a baseline data of the aesthetic angles of the face amongst the Ibo and Yoruba ethnic groups of Nigeria by way of photometry. Lateral facial photographs of 276 Ibo subjects (184 males and 92 females) and 201 Yoruba subjects (106 males and 95 females) were taken. The age range of the subjects were between 18 and 35 years. The following angles Nasofrontal, Nasofacial, Nasolabial, Nasomental and mentocervical angles were traced out form the photographs and measured with a protractor. Results showed that the Ibo males had mean values of 37.8° ± 0.45 for nasofacial angle, 127.1°±0.55 for nasofrontal angle, 76.1±0.89 for nasolabial angle, 125.90±0.39 for nasomental angle and 88.6±0.33 for mentocervical angle. The Ibo females had mean values of 36.3°±0.32 for nasofacial angle, 131.7°±0.53 for nasofrontal angle, 82.5±1.45 for nasolabial angle, 125.1°±0.92, for nasomental angle and 87.5°±0.65 for mentocervical angle. The Yoruba males had mean values of 37.3°±1.76 for nasofacial angle, 127.9°±0.69 for nasofrontal angle, 77.0°±128 for nasolabial angle, 125.6°±0.54 for nasomental angle and 85.9°±0.68 for mentocervical angle. The Yoruba females had mean values of 35.5°±0.38 for nasofacial angle, 134.3°±0.57 for nasofrontal angle, 84.0°±1.36 for nasolabial angle, 126.8°±0.68 for nasomental angle and 85.6°±0.71 for mentocervical angle. There was significant sexual dimorphism at $P<0.05$ within the ethnic groups using the nasofrontal and nasolabial angles. There was also a possibility of ethnic differentiation in two tribes using the mentocervical angle.

Key Words: Photometric, aesthetic angles, Ibo, Yoruba, nasofacial angle, nasofrontal angle, nasolabial angle, nasomental angle, mentocervical angle, ethnic group.

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Hypoglycemic and Antioxidant Activities of Ethanolic Extract of Chrysophyllum Albidum Root Bark in Alloxan-Induced Diabetic Wistar Rats.

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The study was aimed at investigating the hypoglycemic and antioxidant effects of Chrysophyllumalbidum in diabetes induced male wistar rats. Ethanol root bark extract was administered to thirty rats of six groups A, B, C, D, E, and F of five rats each, weighing between 150-170g. Diabetes was induced in Groups B,C,D, E, and F using a single intraperitoneal injection of 140mg/kg of alloxation after an overnight fast. Group A served as the normal control while Group B served as the diabetic control. Group C had metformin of 500mg while Groups D,E, and F received 50, 100, and 200mg/kg/b.w/day of the plant extract respectively through orogastric intubation. All the animals were given normal rat chow and water freely. The experiement lasted for 20 days. On day 21 after an overnight fast, animals were anaesthetized and blood samples were collected by cardiac puncture under inhaled chloroform for the determination of fasting blood glucose (FBG), superoxide dismutase (SOD), catalase (CAT) and malondialdehyde (MDA) says. C. albidum exhibited significantly ($p<0.05$) lowered the FBS, MDA dose dependently when compared to the untreated control and metformin treated rats and significantly ($p<0.05$) differences on the activity of CAT and SOD. The results showed that the plant has significant antidiabetic activity and could therefore be employed for the treatment of diabetes mellitus in which free radicals are implicated.

BRYOPHYLLUM PINNATUM ON THE KIDNEY HISTOLOGY AND ELECTROLYTE PROFILE OF THE KIDNEY

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The effect of bryophyllum on the kidney was assessed, eighteen adult wistar rats were used, these were divided into three group of six rats each. The control received distilled water while the experimental received 1000 or 200mg/kg weight for two weeks orally by gavage. At the administration, animals were sacrificed by chloroform anaesthesia. The kidney was dissected out and preserved in 10% buffered formalin while blood was taken from the left ventricles by cardiac puncture for serum electrolyte assay. The kidney was processed for H&E staining while the serum was assayed for electrolytes-sodium potassium, chloride ions calcium urea and creatinine. Result showed SHRINKAGE OF GLOMERULI, DILATATION of boeman's space, increase in urea levels while creatinine calcium, sodium, potassium add creatinine showed changes compared to control. In conclusion, extract had a mild toxic effect on wistar rats.

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Anthropometric Study of the Auricular Dimensions in Adolescents Among the South-South Nigerians

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This study was aimed at documenting the auricular dimensions of Nigerians in the South-South and to find out if it will exhibit sexual dimorphism. 500 subjects were randomly selected, (250 males and 250 females). Vanier callipers was used to carry out the measurement which are: Auricular length (AL), Auricular width (AW), Lobular length (LL), Lobular width (LW), Attachment Length (ATTL). The data obtained was analyzed using independent sample t-test. The mean results obtained were as follows: males; AL (R-5.5724±0.021, L-5.5572±0.022)cm AW (R-2.9804±0.022, L-2.9706±0.023)cm, LL (R-1.4496±0.014, L-1.4248±0.014)cm, LW (R-1.7640±0.027, L-1.7928±0.027)cm, ATTL (R-4.5496±0.022, L-4.5608±0.025)cm, and females AL (R-5.5836±0.023, L-5.5720±0.025)cm, AW (R-2.8412±0.023, L-2.8526±0.026)cm, LL (R-1.5116±0.014, L-1.4820±0.013)cm, LW (R-1.7820±0.021, L-1.7576±0.022)cm, ATTL (R-4.5828±0.024, L-4.5976±0.026)cm. The difference in the auricular length (AL), lobular width (LW), and attachment length (ATTL) of males and females showed no statistical significant difference (P?0.05). But the difference in the auricular width of males and females was statistically significant (P?0.05), with males showing greater auricular width on both sides when compared with females suggesting sexual dimorphism. The lobular length showed sexual dimorphism on both sides with females having greater values than males, this difference was statistically significant (P<0.05). However there was no statistical difference between the right and left auricular dimensions in males (P?0.05). There was also no statistical difference between the right and left auricular dimensions in females (P?0.05). This study presents metric data of auricular dimensions for normal adolescents in south-south Nigerians. In comparison with other ethnic groups south-south Nigerians males seem to have the smallest lobular lengths, although their respective widths, auricular lengh and width, attachment length are comparable with those of others.

Key Words: Anthropometry, auricular dimensions, and south-south Nigerians.

Morphometric Analysis of the Foramen Magnum in Human Skulls of Nigerian: Its Relation to Gender

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The morphological characteristics obtained by craniometry may be the key to sex determination and enable us to identify unknown individuals in anywhere in the world. The purpose of this study was to evaluate the effectiveness of the linear morphometry of foramen magnum to verify the morphological characteristics for gender determination in human skulls of Nigerian individuals. With an automatic digital calliper length and breadth of foramen magnum in 91 skulls (83 males, 8 females) from department of anatomy in Nigerians were measured. The data was analyzed using Graph Pad Prism version 3.0. Data expressed as mean ± SEM was evaluated using student t-test. Groups were considered to be significantly different if p<0.05. The foramen magnum length for male and female were 36.95±0.25 and 32.78±0.78 respectively while the foramen magnum width were 30.33 0.26 and 27.87 0.50 respectively for male and female. The foramen magnum length and breadth were higher in male than female and significant at p>0.5. The foramen magnum index in female was 85.02% while the male has 82.15% and there is significant difference between both sexes. The morphommetric linear method of the foramen magnum was able to determine the morphological differences between sexes and can be used in conjunction with other anthropological techniques to gender determination of unknown individuals.

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Histological Effects of Chronic Consumption of Soft Drinks on the Intracranial Visual Relay Centres of Adult Wistar Rats

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Effects of chronic consumption of cola drinks on the intracranial visual relay centres namely superior colliculus and lateral geniculate body of adult wistar rats were studied. Rats of both sexes with average weight of 200g were equally assigned into three groups of n=8 each. The rats in groups (A) and (B) were respectively given (Brand A) and (Brand B) of different brands of cola drink for thirty days liberally. The group C (control) received equal volume of distilled water as placebo for the same period. On day thirty-one of the experiment, the animals were sacrificed by cervical dislocation. The superior colliculus and lateral geniculate body were carefully dissected out and quickly fixed in 10% formal saline for histological study. The rats in the treated groups showed some cellular degenerative changes, hypertrophy, sparse cellular population, pyknotic nuclei with some microcystic changes, edema and vacuolation in the stroma of the superior colliculus and lateral geniculate body as compared to the control group. Chronic consumption of cola drinks may therefore have adverse effect on visual sensibilities by affecting the microanatomy of the superior colliculus and lateral geniculate body. It is recommended that further studies aimed at corroborating these observations be carried out.

Key Words: Soft drinks, histological effects, superior colliculus, lateral geniculate body, wistar rats.

A Study of Orbital Height, Width and Orbital Index of Annang People in Akwa Ibom State of Nigeria

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The objective of this study was to determine the mean value for orbital height, orbital width and orbital index of Annang people in Akwa Ibom State, Nigeria between the ages of 18-80years. The measurements of orbital parameters were from skull X-ray (53 males and 60 females). Observation showed that he mean orbital height, width and orbital index were 37.88±1.91mm, 36.16±1.82mm and 104.89±3.07mm respectively in males while they were 30.83±1.18mm, 29.26±1.04mm and 90.37±1.76mm respectively in females. Statistical analysis using the z-test showed that the mean orbital width in males was significantly higher ($p<0.05$), thus is sexually dimorphic. However, the differences in orbital height and orbital index between males and females were not statistically significant ($p>0.05$). The study has shown that the Annang people of Akwa Ibom State of Nigeria have a distinct orbital width compared to other population in Nigeria and world in general as reported by other authors. The result of the study indicated that the Annang people of Akwa Ibom State belongs to the megaseme orbital index category like the Malawian, Chinese and Indians but differs significantly in terms of values from these population. The data obtained from this study is recommended for forensic studies, anthoponetic studies and maxillofacial surgery of Annang people of Akwa Ibom State, Nigeria.

Key Words: Annang people, megaseme, orbital index, orbital width, orbital height, Nigeria.

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Hepatoprotective Effect of Aqueous Extract of Phoenix dactylifera L. Fruit on Paracetamol-Induced Liver Toxicity in Adult Wistar Rats

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Phoenix dactylifera (date palm) fruit a well known nutritious, antioxidant and medical plant. This study was designed to evaluate the hepatoprotective effect of aqueous fruit extract of Phoenix dactylifera (AEPD) against paracetamol-induced hepatotoxicity in Wistar rats. Thirty Wistar rats were divided into six groups (1-6) of five rats each. Group 1 is the control while groups 2-6 are experimental group. Liver toxicity was induced in experimental animals by administering paracetamol (PCM). Group 6 was administered PCM (200mg/kg, oral); Groups 2,3, and 4 were administered AEPD (500mg/kg, 1000mg/kg and 1500mg/kg, oral, respectively) in addition to paracetamol (2000mg/kg, oral) and group 5 administered silymarin (100mg/kg oral) as the reference drug in addition to paracetamol (2000mg/kg, oral) for the period of seven days. Hepatoprotective effect was studied by histological and serum marker enzymes (Alkaline Phosphatase (ALP), Alanine Transaminase (ALT), Aspartate Transaminase (AST) analysis. Administration of AEPD showed significant ($p<0.05$) hepatoprotective effect by lowering the serum levels of the biochemical parameters (AST, ALT and ALP). Hepatoprotective activity of the extract at dose of 500mg/kg was comparable to the reference drug confirmed by histopathological examinations of liver sections. Results indicated that AEPD could be useful in preventing paracetamol induced acute liver injury. Therefore, AEPD possesses significant hepatoprotective activity.

Key Words: Phoenix dactylifera, Hepatoprotective activity, Paracetamol

Congenital Urethral Anomalies in Port-Harcourt

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Congenital anomalies of the urethra are common: they are associated with a wide range of functional and psychological problems if left untreated in both patients and parents.

The adult consequences of such an anomaly are very distressing, unfortunately the male external genitals is the most affected. The aims and objectives are: To study the types of urethral anomalies, Age at presentation, Anatomical location and Treatment outcome. 52 cases of congenital urethral anomalies were entered into the study over a 10yr period. Age, sex, family history and type of anomaly were recorded. Treatment complications. Results include Hypospadia – 46, Extrophy-epispadia complex – 4, Epispadia – 2. Associated Anomalies are Hernia – 10, Undescended testis – 5, Club foot – 2. Hypospadias are the commonest urethral anomalies in Port Harcourt while the distal penile variety was the commonest type of hypospadia as well, epispadias are the least common.

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Toxicological Evaluation of Oral Administration of Phoenix dactylifera Fruit Extract on the Histology of the Kidney and Liver of Adult Wistar Rats

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Various parts of Phoenix dactylifera (date palm) are used in traditional medicine to treat various disorders such as fever, inflammation, abdominal troubles, sore throat, etc, in different parts of the world. This study was designed to investigate the effects of aqueous extract of Phoenix dactylifera fruit (AEPD) on the histology of the kidney and liver in Wistar rats. Thirty-nine Wistar rats were divided into two groups control (three rats) and experimental (Thirty-six rats). The animals in experimental group were further categorized for two phase study (eighteen rats divided into three groups; six rats/ group for each phase). In the first phase, the three groups (A, B and C) were administered AEPD (10mg/kg, 100mg/kg and 1000mg/kg, oral, respectively). In the second phase, the three groups (D, E and F) were administered AEPD (1600mg/kg, 2900mg/kg and 5000mg/kg, oral, respectively). In both phases, after 24hours of AEPD administration, three rats of the six in each group were sacrificed and the other three sacrificed after 21 days histopathological examinations of kidney and liver sections of the experimental animals were compared with the control. No mortality or signs of toxicity was observed in the experimental animals upon administration of AEPD, even at doses as high as 5000mg/kg, which was confirmed by mild pathological changes with remarkable recovery after 21 days. This result demonstrates that the LD_{50} of AEPD is greater than 5000mg/kg and is relatively safe.

Key Words: Phoenix dactylifera, Liver, Kidney, Histology, LD_{50}.

The Importance of Telfairiaoccidentalis in the Treatment of Alcohol Induced Male Infertility

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There have been concerns on the rapid increase in male infertility over the past 30 – 50 years. To investigate the effects of the use of Telfairiaoccidentalis (T. occidentalis), a commonly consumed vegetable in southern Nigeria to treat alcohol induced male infertility. Thirty adult male rats weighing between 220 – 280 grams were divided into six groups (A-F) of five each. Group A (control) received distilled water, Group B received ethanol only, Group C, received 250mg/kg of T. Occidentalis, Group D received 500mg/kg of T. Occidentalis. Group E received 250mg/kg of T. Occidentalis with ethanol and Group F received 500mg/kg of T. Occidentalis with ethanol. The administration lasted a period of 16 weeks after which they were introduced to females on a 1:1 ratio. The testes were harvested and semen parameters measured. There was a significant increase in testosterone levels of Groups C, D and F compared with Group B (ethanol only). There was also a significant increase in sperm motility of Groups C, E, and F compared to Group B. Group D showed a significant increase in sperm motility and sperm count compared to control. There were disruptions in the germinal epithelium of Group B compared to control. There was also a decrease in the number and weight of foetuses of Group B compared with control. T occidedntalis prevented alcohol induced male infertility.

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Relationship of Thumb Prints and Lip Prints in Nigerians

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Establishment of association between two variables in the forensic science is of paramount importance. The study was aimed to determine association of lip print types and left thumb prints among Nigerians. A total of 820 subjects (414 male and 406 female) participated in the study. The lip prints were obtained on microscopic glass slide and developed using carbon black powder, after which the print was divided into 10 quadrants and analyzed using magnifying lens. For finger prints normal conventional method of using ink pad was employed. The data were analyzed using chi square test and $P<0.05$ was considered as level of significance. THE RESULT SHOWS THE PERCENTAGE DISTRIBUTION OF LIP PRINTS AS Type V with 31.39%, Type III (24.18%), Type IV (18.70%), Type I (14.87%), Type II (10.29%) and the least was Type I (0.57%). For finger prints the males had the distribution as follows; loops (61.99%), followed by whorls (34.19%) and arches (3.88%). Similar pattern was seen in females as loops (65.55%), Whorls (30.59%) and Arches (4.26%). In both series loops exhibit high percentages and arches least. The association between lip prints and left thumb print show statistically significant association in lower right medial (LRM) ($O^2 = 7.95$, $P = 0.0002$) and lower left lateral (LLL) ($O2 = 5.42$, $P = 0.02$) compartments only. In conclusion, the lip print was found to be statistically associated with left thumb prints. Hence, relationship of finger prints and lip prints can hold potential promise as supplementary tool in personal identification.

Key Words: Lip prints; Nigeria; Personal identification

Radiologic Measurement of the Sella Turcica in Adult Population of Some Eastern and South-South States In Nigeria

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The sella turcica is a structure readily recognized on the lateral cephalometric radiographs and routinely traced for cephalopmetric analysis. This makes it a good source of additional diagnostic information related to pathology of the hypophysis or to various syndromes that affect the craniofacial region. Normal anatomical variation of the sella turcica must be considered, as it may vary greatly in normal individuals. This study was carried out to determine the dimensions (length and depth) of the sella turcica of adult skulls of the East and South-South Nigerian population. One hundred normal lateral x-ray of the sellar turncica of adult skulls comprising 69 males and 31 females all from radiology department of UPTH and BMH were used for this study. The parameters investigated were the height and depth of the sella turcica. The measurements were done using a meter rule. The measurement obtained from the x-rays were as follows; for males, the mean ±SD of the length of the sella turcica was 12.61± 1.64 and depth was 8.97 2.11mm, while for the females, the mean SD of the length of the sella turcica was 12.55 1.50mm and depth was 8.87 1.75mm. The overall mean SD of the length of the sella turcica was 12.59 1.59mm while the depth was 8.94 1.99mm. There was a significant difference ($p<0.05$) in the sella turcica between the dimensions of male and female subjects. The result of this study will serve as a normative refrence standard that could assist in a more objective evaluation and detection of pathologic conditions of the sella turcica and its associated pituitary gland. This study could also find use in the field of anthropometry and forensic medicine.

Key Words: Sella turcica, Normal lateral x-ray, Adult skulls.

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Effects of Prenatal Nicotine Administration on the Histology of the Cerebral Cortex of Young Wistar Rats

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Tobacco smoking has been linked to many preventable diseases affecting various organs and systems of the body, including the brain. The current study was conducted to demonstrate the cortical histological changes observable in young Wistar rats exposed to nicotine during gestation, using different staining techniques. Vaginal smearing was conducted for the female Wistar rats to determine their oestrous cycle, after which they were exposed to male rats overnight, for mating. Pregnancy was confirmed and the pregnant rats were divided into 3 groups based on the 3 trimesters (A,B,C), with each group having a control and a treated subgroup. The control Groups (A,B,C) were given 0.1ml of normal saline p., while the Treated Groups (A,B,C) received 0.06mg/kg/ 0.1ml of nicotinei.p. Treatment was for a period of 6 days within each trimester for all subgroups. The pregnant animals were allowed to litter, and at postnatal day 35 they were sacrificed by cervical dislocation. The skull was dissected to exposeand remove the brain; the frontal, temporal, parietal and occipital cortices were excised and fixed in 4% paraformaldehyde for histological tissue preparation, using cresyl fast violet, feulgen DNA and golgi staining techniques. Exposure of the developing brain to nicotine during gestation resulted in various degrees of abnormalities in the cytoarchitecture of the cerebral cortex of young rats. The gestational period of nicotine exposure and specific cortical affectation are important factors to consider while investigating neurological abnormalities in offspring of tobacco smokers.

Long-Term Habitation in Refuse Dump Damages Major Organs of Rats

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Open dumping of solid waste is the prevailing form of waste disposal in Nigeria. It has been observed that there are individuals who make their habitat in the close vicinity of vast collection refuse dump. The potential health hazards of such practices prompted this study. We investigated the histology of major organs of Wistar rats following long term habitation in refuse dump. Young adult Wistar rats of approximately 70 days old were housed in the vicinity of refuse dump site for 8months. The liver, lungs, kidney and brain wre harvested and processed for routine histological H&E staining protocol. Histological sections of experimental rats showed severe histological alterations. Severe fatty changes and hepatocellular necrosis were observed in the liver as well as presence of Mallory bodies. There was loss of the elastic tissue support of the bronchioles, and also loss of the alveolar wall and coalescence of adjacent alveoli. Kidney sections reveal infiltration of fibrous-like materials into the bulk of the parenchyma around the renal corpuscle. This covered the bownian's space and occluded the lumen of the tubules. There was increased vacuolations in cerebellar medulla and few degenerating purkinje neurons. These findings suggest deleterious health effects following habitation in the vicinity of rfuse dump and recommends further studies to elucidate the cause of these effects. We also recommend that the government and the society at large take steps to address the menace of indiscriminate refuse dumping.

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Dermatoglyphic Features in Diabetes Mellitus Subjects and Essential Hypertensive Subjects in River State: A Comparative Study

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The study was carried out to document characteristic dermatoglyphic patterns in subject with Diabetes Mellitus and also subjects with Essential Hypertension in River State, Nigeria. Digital and palmar dermatoglyphic analysis of 160 subjects was carried out. 80 subjects with Diabetes Mellitus (40 males and 40 females) and 80 subjects with Essential Hypertension (40 males and 40 females) were used. Dermatoglyphic features such as the digital patterns frequency, ATD angle, DAT angle, pattern intensity index, position of T-triradii, a-b, b-c, c-d, a-d palmar ridge counts, Total ridge count, and digital ridge count on each hand were assessed. The result demonstrated that the diabetic subjects had a significantly higher percentage frequency of ulnar loop digital pattern than the hypertensive subjects (77 .5%) ($P<0.05$), while the hypertensive subjects had a significantly increased frequency of whorl digital pattern than the diabetic subjects (70.5%) ($P<0.05$). The hypertensive subjects (male and female) had significantly higher palmar ATD than diabetic subjects ($P<0.05$), except in the right hands offemale subjects where there was no significant difference ($P>0.05$). The DAT angles were significantly higher in diabetic subjects than in hypertensive subjects ($P<0.05$). It was also observed that the females (both the diabetic and the hypertensive) have significantly higher DAT angles than the males ($P<0.05$). The mean Pattern intensity indices is significantly higher ($P<0.05$) in hypertensive subjects (12.94) than in diabetic subjects (12.09). The percentage frequency of position ofT triradius is higher (91.26%) than that *oU* (8.79%) and 0% at fi. The mean total finger ridge count is significantly higher ($P<0.05$) in hypertensive subjects (113.34) than in diabetic subjects (107.34). The mean a-b, b-c and a-d ridge counts are significantly different in both diabetic and hypertensive subjects. The hypertensive subjects have significantly higher a-b, c-d and a-d ridge count while the diabetic subjects have significantly higher b-c ridge count. The result demonstrated the distinct dennatoglyphic patterns and values which could be used as a noninvasive anatomical marker for Diabetes mellitus and Essential Hypertension. However, further studies are needed to confirm these findings for Nigerians, possibly using a larger population.

Key words: Dermatoglyphic, Diabetes mellitus , Essential Hypertension, Rivers State, Nigeria