

Title: Dimensions of the eye and orbit in a South African paediatric CBCT sample

NT. KHOSA, S. VAN DER WALT, A.C OÉTTLE

Department of Anatomy and Histology, Sefako Makgatho Health Sciences University, South Africa

Received: June 23, 2022, Editor assigned: June 24, 2022, Reviewed: June 28, 2022, QC No. Q-00001;
Published: April 16, 2022 Invoice No. NCCP-000F1

Abstract

Introduction: Facial features grow at different rates and little information is available regarding the growth of the orbit, eyes and palpebral fissures in South African children. The growth of the orbital region is of particular relevance to forensic anthropologists to accurately produce facial approximation of unknown deceased children. In a clinical setting, normative values are used to accurately diagnose eye conditions, e.g. exophthalmos and ptosis. **Innovation:** This study aims to report the normative values of the dimensions of South African paediatric eyes, orbits and palpebral fissures. These dimensions will be calculated based on CBCT scans, which eliminates the effect of gravity. and has no tissue distortion commonly encountered during cadaver based studies. Variations in the growth rate of the orbital and periorbital structures have been reported between sex and population groups in the literature, and similar findings is expected for this study. **Aims and objectives:** The aim of this study is to determine the dimensions of the orbit, eye and periorbital structures in various childhood ages in a South African CBCT scan collection. **Methods:** This is a quantitative retrospective descriptive study based on 160 cone-beam computed tomography (CBCT) scans. Scans will be collected from a repository collected from the Cintocare Hospital, Pretoria. Children between the ages of four and eighteen will be included in the study. Optimally the sample will include 40 patients from each ancestral group (white and black South Africans, respectively) and sex group (male and female). Landmarks will be placed on the

2D slices of the eye and 3D rendering of the orbit and eyelids using the MeVisLab © v.3.0.2 programme. Linear distances will be measured between the placed 3D points. Basic descriptive statistics will be recorded for each sex-population group and the influence of age, sex and population group will be assessed. **Dissemination:** Results will be presented at national and international conferences and will be sent in for publication in a peer reviewed accredited journal.

Title: Assessment of the Degree and Types of Dehydration in Libyan Children Suffering from Acute Diarrheal Diseases in Gharyan City

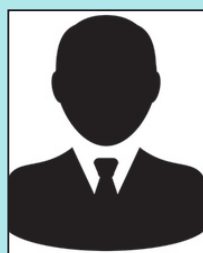
Aisha A Sehari

University of Tripoli, Tripoli, Libya

Received: June 30, 2022, Editor assigned: July 01, 2022, Reviewed: July 05, 2022, QC No. Q-00002;
Published: April 16, 2022 Invoice No. NCCP-000F2

Biography

Dr. Aisha has been Graduated from Tripoli University in January 1981 as Medical Doctor (MBBCh), with the specialties and Diploma in pediatric (DCH) from the same University but



the course and the exam. For diploma was done by Glasgow University teaching staff. Later I obtained post-graduation from Alexandria University; I got Master degree in pediatric gastroenterology and Doctor of pediatrics (MD) in pediatric subspecialty (hepatology).

Started working at government university hospitals in Tripoli (Al khadraa, Salahdin and Algala children hospital) plus Gharrian teaching hospital where I have continued my research.

period were 605 patients. The mean age of children was 11.7 (SD = 8.6) months, males represented 59.0% of the children patients. Of all acute diarrheal cases, 157 (25.9%) of children presented as severe degree, out of them 14 (8.9%) were shocked, moderately dehydrated children were 439 (72.6%) and 9 (1.4%) were mildly dehydrated. Isotonic type was reported in 432 (71.4%) of dehydrated children. hypertonic dehydration was reported in 101 child (16.7%) and hypotonic in 70 children patients (11.4%). Severe-shock presentation was more frequent among children who have hypertonic dehydration (60.4%) than in those presented With hypotonic (11.8%) or isotonic (20.4%) dehydration and the type of dehydration showed a statistically significant association with the degree of the dehydration ($p < 0.001$). Acute Diarrhea; Type of Dehydration; Degree of Dehydration; Thrombocytopenia

Abstract

Introduction: Across all ages, diarrheal disease causes more illnesses than any other ailment and is second only to pneumonia as the largest killer of children under five years. Children who survive an episode of diarrhea, but experience recurrent infections, are more likely to suffer from lifelong cognitive and physical impairments. Diarrheal disease is preventable and treatable. Deaths have declined in recent years-but children are still getting sick and surviving, facing the long-term consequences of repeated infections. New threats like COVID-19, antibiotic resistance, climate change, migration, and urbanization create new challenges and urgency. This work was planned to determine the prevalence of different type of dehydration clinically in acute diarrhea along with serum sodium level. Study of some co morbid factors was done.

Method: Retrospective review study of all patients aged 1 month to 60 months admitted to Gharrian Teaching hospital with acute diarrhea < 14 days duration from 2015 to 2018. Children with Dehydration were clinically classified as mild, moderate and severe according to WHO classification and depending on serum sodium level these studied children were also classified into isonatremic--hyponatremic---hypernatremic dehydration. Complete blood picture (CBC), urea, blood sugar and arterial blood gases were done.

Results and Discussion: The total number of the children aged 1 month to 60 months admitted to Gharyan teaching Hospital complaining of acute diarrheal diseases during that

Interestingly, a statistically significant association between the degree of the dehydration and platelets count was reported. Shock presentation was more prevalent among children aged less than one year old (31.1%) than in the older age groups, and age displayed a statistically significant association with the degree and severity of diarrhea ($p = 0.007$). No statistically significant association was found between sex and the severity of diarrhea. The median urea difference was statistically significant ($p < 0.001$).

Conclusion: So, we conclude that acute diarrhea is still a major problem and severe hypertonic dehydration is still high in our children, so we recommend early diagnosis and uses of ORS, fluid and education of society about it, to avoid complications. Support for research and development of new drugs and vaccines can accelerate an end to the crisis.

Keywords: Acute Diarrhea; Type of Dehydration; Degree of Dehydration; Thrombocytopenia

Title: Neonatal and Pediatric intestinal obstruction

Amin Gohary

DS, FRCS Eng ,FRCS Glasg, FRCS Edin, Burjeel Hopital, UAE

Received: June 28, 2022, Editor assigned: June 29, 2022, Reviewed: July 05, 2022, QC No. Q-00003;
Published: April 16, 2022 Invoice No. NCCP-000F3

Biography

Amin El-Gohary completed his MBBCh in 1972 and his Diploma in General Surgery in 1975 at Cairo University, Egypt. He became a fellow of The Royal College of Surgeons in



UK: Edinburgh in 1979, London in 1980, and Glasgow in 1997.

Prof. Dr. Amin worked initially in Egypt and then moved to Kuwait, then to UK, before coming to UAE in 1983. In the same year, he became the Chief and Head of the Department of Pediatric Surgery of a large government hospital. Additionally, he held post as a Medical Director for the same hospital starting 1989. He is the President of the Pediatric Surgical Association of UAE.

Abstract

Learning Objectives:

- 1: Recognize the difference between vomiting due to medical and that related to surgical pathology
- 2: Discuss the different causes of surgical vomiting
- 3: Review the impact of bilious vomiting and its significance

Vomiting in children is common and mostly related to medical condition. However there are surgical conditions associated with vomiting which needs to be acknowledge and diagnosed early. Bilious vomiting is an ominous symptom and needs to be taken seriously. Any baby who vomits bile should be considered as having an underlying intestinal obstruction until proved otherwise.

Title: The relationship between TORCH infection with gastrointestinal tract surgery in neonates

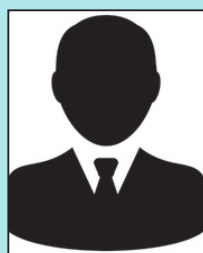
Sayed Saeed Nabavi

Faculty of pediatrics. Tehran medical sciences, Islamic Azad University, Iran

Received: August 08, 2022, Editor assigned: August 09, 2022, Reviewed: August 15, 2022, QC No. Q-00004;
Published: April 16, 2022 Invoice No. NCCP-000F4

Biography

Sayed Saeed Pediatric: I am completed my PhD in 26 years old from azad tehran university and completed pediatric speciality in zanzan university in iran and i have been



working in NICU ward milad hospital in the tehran for almost 20 years. Seyed Saeed Pediatric: Seyed Saeed Nabavi
Faculty of pediatrics. Tehran medical sciences, Islamic Azad University, Tehran, Iran.

had undergone gastrointestinal surgery due to Choledochal cyst and duodenal atresia. these results was not significant ($P > 0.05$). Also, the incidence of TORCH infection were not significantly correlated with gestational age, sex, The parity and gravity of individuals. ($0.05 < P$)

Conclusion: The prevalence of TORCH infection among infants undergoing gastrointestinal surgery varies from 0% to 20%. $CI_{95}=[0-20]$ There was no association between gastrointestinal surgery and TORCH infection. However, given the importance of the issue and the lack of sufficient studies in this area, larger studies are needed to confirm or reject these results. scale.

Abstract

Background: The aim of this study was to investigate the association between gastrointestinal tract surgery and TORCH infection in neonates referring to Milad Hospital during 2019 and 2020.

Materials and Methods: In this cross-sectional study, 20 neonates with gastrointestinal surgery were selected and investigated in the Milad Hospital during 2019 and 2020. The results of TORCH founds in the IgG and IgM antibody titre tests in mother and neonate including toxoplasmosis, rubella, Cytomegalovirus and herpes infections in the subjects were determined and compared to other variables. collected data were analyzed with Kolmogorov-Smirnov, Shapiro-Wilk, Chi-Square and Mann-Whitney tests at a significant level of 0.05.

Results: Maternal gestational age were from 33 to 40 weeks. 80% of the subjects were boy. The subject weights were in the range of 1480 to 3800 grams. parity (90%) and gravid (65%) were reported 1 for most mothers. Duodenal atresia with 40% was the most common cause of gastrointestinal surgery among newborns. In our study, 10% of all infants undergoing gastrointestinal tract surgery had TORCH infection -type CMV (two cases), who

Title: The Genetic Aspect Of Human Heart Development Quest To A Personalised Prophylaxis

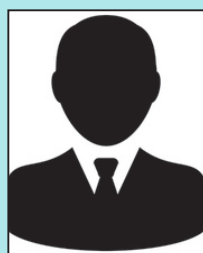
Krzysztof Piotrowski

Genetic Centre for Family, Szczecin, Poland

Received: May31, 2022, Editor assigned: June 01, 2022, Reviewed: June 10, 2022, QC No. Q-00005;
Published: April 16, 2022 Invoice No. NCCP-000F5

Biography

Krzysztof Piotrowski, a specialist in Clinical Genetics and in Gynecology and Obstetrics also, completed his PhD with a dissertation on fetal echocardiography. Putting his knowledge



into practice, he performs about 3500 USG investigations of gravidas annually for prenatal diagnosis. He has published many scientific papers and chapters covering prenatal diagnosis. Having introduced the BACs-on-BEADsTM technology to Polish diagnostics (presently he use the highest quality array CGH by ThermoFisher-Germany), at moreover present he is focused on applying molecular genetics prenatally.

Moreover, in numerous functional disorders, for example the arrhythmia or block, the reason is also genetic, namely the mutation of ion- channel gene placed in 6 chromosomes. Now we now over 1500 mutations.

Many genes of cardiogenesis were identified thanks to the investigation of other genetic disorders, for example PTPN11 gene in Noonan syndrome. The gene is also responsible for the development of pulmonary valves or TBX5 gene in Holt-Oram Syndrome. Presently the most promising method is NGS technology, where we can perform hundreds of mutations at one time.

Heart development is also affected by

Abstract

Congenital Heart Diseases are the most common malformations both as an isolated form and a part of genetic syndromes. Extraordinarily fast development of molecular genetics confirms that almost all CHD are genetically dependent in terms of microaberrations in different regions of a chromosome or single gene mutations. On the other hand, CHD are an important component of diverse genetic diseases, including monogenic, metabolic and mitochondrial disorders, most often as secondary cardiomyopathies.

The genes participating therein are located nearly on each chromosome, mainly on pathways, along with ligand genes and co-factors, transcription factors or individually. Many mechanism on heart development are based on the balance between apoptosis, proliferation and migration. Crucial genes controlling fetal development, including the creation of heart tube and the forming of left and right ventricular outflow are primary "homeobox" genes grouped in 4 clusters HOX1-4 . Other genes condition the forming of different structures. The key process for activating consecutive genes is methylation. Methyl groups originate from the metabolic cycle of folic acid, where the main gene is MTHFR. However, it is of great importance to know the real FA level, which is not reflected in the serum!

Title: Customized Expandable Polyurethane Stent Valve, implanted by catheter. Strategies for Pulmonary Artery approach

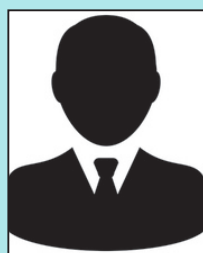
Miguel Maluf. MD, PhD; Alfredo A. Rodrigues. MD.

Surgical Endovascular Center - Hospital Alemão Oswaldo Cruz – São Paulo, Brasil

Received: June 10, 2022, Editor assigned: June 11, 2022, Reviewed: June 18, 2022, QC No. Q-00006;
Published: April 16, 2022 Invoice No. NCCP-000F6

Biography

Dr. Miguel Angel Maluf was born in Córdoba, Argentina in 1950. He has graduated from Universidade Nacional de Córdoba, Argentina and become a medical doctor in 1973.



Dr. Maluf did specialization in Cardiovascular Surgery at Instituto do Coracao (INCOR) – São Paulo, Brazil. His Surgical Fellowship training was finished by defending the Master's, Doctoral and Postdoctoral thesis, in the Cardiovascular Division at Universidade Federal de São Paulo, Brazil. He research includes development of several models of biological cardiac prosthetic to remodeling of the right ventricle outlet tract, in congenital heart disease.

TPVR, they were classified into 6 groups according to the anatomical aspects of the pulmonary artery, analyzed by CT Angiography:

Type.1: Pulmonary valve insufficiency (PVI) (7 pat.)

Type.2: PVI + pulmonary trunk stenosis (8 pat.)

Type.3: PVI + pulmonary trunk aneurysmal dilation (15 pat.)

Type.4: PVI + PT + RPA + LPA – stenosis (6 pat.)

Type.5: Pulmonary prosthesis dysfunction (5 pat.)

Type.6: RV-PA Conduit dysfunction (4 pat.)

Result: through post-processing images by CT Angiography, it was possible to enlarge them to their natural size, followed by 3D printing, in elastic and transparent plastic mass, keeping the interior of the hollow cardiac cavities.

Abstract

Background: Patients with tetralogy of Fallot, undergoing Right Ventricular Remodeling, in childhood, with or without pulmonary valve reconstruction, evolve, in the late follow-up, with pulmonary insufficiency and Right Ventricular dysfunction, requiring the implantation of a pulmonary prosthesis.

The anatomical variations of the pulmonary artery, associated with the presence of calcifications, dilations, or stenosis as a result of surgeries performed, require adequate planning in the surgical approach for Transcatheter Pulmonary Valve Replacement - TPVR.

Material: A new Expandable Polyurethane Stent Valve, implanted by catheter, in pulmonary position has been developed and approved in Biocompatibility, Physical, Hydrodynamic, Fatigue, Experimental, and Ultrastructure Study of explanted sheep prostheses after 24 months of follow-up, analysis, following ISO 5840-3, 2015 1

Method: In a group of 43 adult patients, in the late follow-up of surgical correction of Tetralogy of Fallot, with late follow-up, at São Paulo Federal University, with an indication for

Custom prosthesis manufacturing: 3 transverse diameters (TD) are measured: TD1: At the level of the Pulmonary Ring; TD2: In the middle third of the TP and TD3: At the level of the origin of the pulmonary arteries. Also, a longitudinal measure (LM), allows for knowing the length of the prosthesis: The distance between the Pulmonary ring and the origin of the pulmonary arteries.

Patients older than 7 years are treated with interventional hemodynamic procedures: G1: TPVR procedure. G2, G3, and G6: Double Sent Valve Technique, is performed. After implanting in the same surgical procedure, a cylindrical stent is firstly implanted to correct the lesions in the pulmonary trunk and then the valve stent is implanted inside the cylindrical stent. In G4, as well as in patients under 7 years of age, valve stent implantation is performed by surgical approach; the correction of defects is made with synthetic material, such as a Polytetrafluoroethylene (PTFE) prosthesis or Polyurethane membrane, followed by implantation of a cylindrical stent. G5: Valve in valve procedure is indicated.

Conclusions: Programmed expansion of stent valves with PU leaflets, calcification resistance, and resistant to fatigue tests, is expected to reduce the number of reoperations in pediatric patients.