

### Proceedings at the 83<sup>rd</sup> conference of the Nigerian Surgical Research Society held at the Delta State University Teaching Hospital from July 11 – 13, 2024

#### Laparoscopic Antireflux Surgery In The Management Of Gastro-Oesophageal Reflux Disease- Our Experience.

Obonna George Chilaka<sup>1,4</sup>, Ede JK<sup>2</sup>, Obonna MC<sup>3</sup>, Eze TC<sup>2</sup>, Ugwueke IF<sup>2</sup>

<sup>1</sup>University of Medical Science Ondo

<sup>2</sup>University of Nigeria Teaching Hospital Enugu

<sup>3</sup>Abia State University Teaching Hospital Aba

<sup>4</sup>George and Martin Minimal Access Extension, Obizi.

#### Abstract

**Background**-The reflux of gastric contents into the oesophagus may not be amenable to medical treatment. Laparoscopic antireflux surgical practice has become a veritable tool that is efficacious in the management of this disorder.

**Aim**-To highlight the role of laparoscopy in the management of gastroesophageal reflux disease [GERD].

**Methodology**: This is a prospective study in which all the patients that were recruited and operated on from January 2022 to May 2023 were followed up to May 2024. A total of 26 patients referred to our public and private laparoscopy center from the medical department were operated on for failed medical treatment of GERD. The duration of surgery and outcome including clinical success as observed by symptom improvement without relapse were recorded. After the laparoscopic surgical

intervention, patients were monitored for the duration 1 year.

**Results**: Of the 25 patients referred and subsequently recruited into the study all were females. The mean age was 41.73 +\_ 11.7 years. All the patients presented with the incapacitating symptoms of dyspepsia and heartburn. Findings at surgery included unidentifiable 13[50%], hiatal defect 9[34.6%], gastric fundal diverticulum 4[15.4%]. The mean duration of surgery was 210 minutes.

At a follow up period of 1 year, all the patients had relief of their symptoms.

**Conclusion**: Laparoscopic antireflux operation is of immense benefit in the management of patients with failed medical management of GERD. All our patients were females and were all relieved of their symptoms after our procedure.

**Keywords**: Gastro-oesophageal, reflux, laparoscopy.

**Mannheim Prognostic Index in Predicting the Outcome of Perforated Peptic Ulcer Disease in Irrua Specialist Teaching Hospital, Nigeria.**

*Ehiagwina LA<sup>1</sup>, Kpolugbo J<sup>1</sup>, Tagar E<sup>1</sup>, Odion C<sup>1</sup> Odigie V<sup>2</sup>*

<sup>1</sup>Department of Surgery, Irrua Specialist Teaching Hospital, Irrua and Ambrose Alli University, Ekpoma.

<sup>2</sup>Department of Surgery, University of Benin Teaching Hospital, Benin City

**Abstract**

**Introduction:** Peptic ulcer perforation (PUP) is one of the contemporary surgical challenges to gastrointestinal surgeons. It is associated with significant morbidity and mortality. The Mannheim prognostic index (MPI) has been used to predict outcome in PUP.

**Aim and objectives:** To evaluate the validity of MPI in predicting the outcome of peritonitis secondary to PUP in adult patients at Irrua Specialist Teaching Hospital (ISTH).

**Methodology:** This was a one-year prospective consecutive study of forty-four (44) patients who met the inclusion criteria for the study. The diagnosis of PUP was made on the basis of clinical history, physical examination, investigations and confirmed intra-operatively. Each patient was evaluated with MPI scoring system at the time of admission and at laparotomy. The result of the scoring system was then analyzed. Association between variables was tested for

statistical significance.  $P < 0.05$  was considered statistically significant. Morbidity and mortality rates for the scoring system were calculated and the predictive values and sensitivity were derived. Binary regression analysis was done to determine the predictive accuracy of the scoring system.

**Result:** MPI score was found to have an area under the curve (AUC) of 89%. The sensitivity and specificity were 82% and 88% respectively. This shows that the Mannheim peritonitis index scoring system is a good outcome predictor in predicting the prognosis of peptic ulcer perforation peritonitis in the studied population.

**Conclusion:** Increasing MPI was associated with poor outcome. MPI is a good predictor of outcome in cases of peritonitis secondary to PUP in the studied subjects, as it shows a sensitivity of 82% and AUC 89% as a predictor of outcome.

**Key words:** Secondary peritonitis, Mannheim peritonitis index (MPI) scoring system, morbidity, mortality, perforated peptic ulcer.

## Annular Pancreas In Children: a 5-year Prospective Study

Gbobo I<sup>1</sup>, Okoro PC<sup>2</sup>, Igwe P<sup>2</sup>, Iweha P<sup>2</sup>, Nwivu P<sup>2</sup>

<sup>1</sup>Department of Surgery, Rivers State University Teaching Hospital, Port Harcourt

<sup>2</sup>Department of Surgery, University of Port Harcourt Teaching Hospital, Port Harcourt

### Abstract

**Introduction:** Annular Pancreas is a rare congenital anomaly associated with duodenal obstruction either solely or in combination with an intrinsic duodenal obstruction or an extrinsic obstruction secondary to LADD's bands. Majority of annular pancreas present in infants but its not uncommon in older children and rarely in adults. Those cases presenting with complete duodenal obstruction present soon after birth with bilious vomiting and a double-bubble sign on X-ray. Late presentations are difficult to diagnose due to non-specific presentations – vomiting after feeds which may or may not be bile stained, early satiety and poor weight gain.

**Aim:** To present the clinical features and intraoperative detail of intra-operative procedures and associated anomalies in annular pancreas in children.

**Materials and Methods:** This is a prospective study of patients surgically treated with annular pancreas from Jan 2009 to December 2013. The data recorded include age, gender, duration of symptoms before presentation, previous treatments. Presenting Symptoms, associated anomalies, imaging findings, type of surgically procedure, post-operative

outcomes and complications were recorded and analysed. All the patients had Ultrasound and plain abdominal X-ray. Magnetic Resonance Imaging and Computed Tomography were not easily available. Chromosomal studies and ECHO cardiogram were not routinely done.

**Results:** There were 11 patients. 7 females and 5 males. Ratio= 1.4 :1. 6 patients were New born (54.5%). Three patients presented outside the neonatal period (27.2%). 2 patients were above 12 months of age (18.1%). Age range 2 days to 8yrs. Median was 9months. All the patients presented with vomiting which was bilious in New born and Variable in infants. Non-bilious in the older children. Associated anomalies were LADD's bands in 7 (63%). Pre-duodenal portal vein in 3 (27.2%) and 1 (9%) had heterotaxy syndrome. Clinical signs were visible peristalsis, upper abdominal fullness. USS report was non-specific. Plain X-ray was the only useful investigation that showed double bubble sign in Neonates, enlarged stomach in older patients. Barium meal showed enlarged stomach and dilated first part of duodenum in older subjects. Operative techniques were; Duodeno-duodenostomy (KIMURA) in 7 (63.6%),

Duodeno-jejunostomy in 2 (18.1%), Release of Ladd's band + Ladd's procedure (18.1%). There was 1 death due to sepsis and, heart anomaly (9.0%). The most common associated anomaly was malrotation with Ladd's band followed by pre-duodenal portal vein. Length of hospital stay was 9 -15 days (mean 12 days)

**Conclusion:** Annular pancreas presenting outside the Neonatal period have non-specific clinical features. Vomiting (non-

bilious) is the most frequent clinical presentation followed by food intolerance and poor weight gain. A high index of suspicion is required to suspect annular pancreas outside the Neonatal period. Plain abdominal Xray is the most available imaging modality. Duodeno-duodenostomy. is the most frequent surgical procedure. Mortality is dependent on associated anomalies especially cardiac anomalies and prematurity.

**Keywords:** Annular pancreas, Children, Anomalies

**Can Post Void Residual, Peak Flow Rate and Quality Of Life Assessment Predict Bladder Outlet Obstruction From Benign Prostatic Hyperplasia?**

*Vitalis Obisike Ofuru<sup>1</sup>, Monday K Sapira<sup>2</sup>*

<sup>1</sup>*Faculty of Clinical Sciences, Rivers State University. Port Harcourt*

<sup>2</sup>*Faculty of Clinical Sciences, University of Port Harcourt. Port Harcourt*

**Abstract**

**Background:** Lower urinary tract symptoms (LUTS) are plethora of symptoms related to, but not limited to diseases of the prostate. International prostate symptoms score (IPSS) estimates the severity of LUTS related to prostatic enlargement. In this study we correlated IPSS with PFR, PVR urine and QOL assessment.

**Aim:** To determine if PFR, PVR, and QOL assessment correlate IPSS and measure severity of prostatic obstruction.

**Methods:** This was a prospective analytical study. Consecutive patients with clinical evidence of prostatic enlargement had IPSS and quality of life assessment. PFR was determined with uroflowmetry and PVR was measured with post micturition abdominal USS. Pearson correlation coefficient was

used to determine how each of these variables correlated with IPSS.

**Results:** There was strong positive correlation between IPSS and QOL scores ( $r = 0.633$ ,  $p = 0.0001$ ), PVR showed a moderate positive correlation ( $r = 0.170$ ,  $p = 0.006$ ), suggesting that higher IPSS scores were associated with larger postvoid bladder volumes. There was negative correlation between IPSS and PFR suggesting reduction in flow rate as IPSS increases ( $r = -0.257$ ,  $p = 0.001$ )

**Conclusion:** Increase in severity of lower urinary tract symptoms from prostatic obstruction is associated with decrease in peak flow rate, higher post void residual urine and worsening quality of life.

**Keywords:** LUTS, IPSS, QOL, Flow rate, PVR, Nigeria.

**Prediction Of Laparotomy Outcomes in Delta State University Teaching Hospital Using Perioperative Creatinine Assessment: a Preliminary Study**

*Ejeheri OD, Onwubolu OE, Akpo EE*

*Department of Surgery, Delta State University Teaching Hospital, Oghara.*

**Abstract**

**Introduction:** Serum creatinine predicts cardiovascular risk; its use in laparotomy outcomes is uncommon in our setting.

**Objective:** The aim of this study was to determine if perioperative serum creatinine was useful in predicting the outcome of patients undergoing laparotomies.

**Methods:** A 6-month prospective cohort study at Delta State University Teaching Hospital assessed perioperative serum creatinine correlations with post-laparotomy mortality using Pearson's correlation (r) and Spearman's rank (p) and predictive value was determined via receiver operating characteristic (ROC) curve analysis. Relationships of clinical and operative factors with serum creatinine were also examined.

**Results:** The study involved 42 patients, mean age = 35.8±24 years with 64.3% males. Seventeen percent died within 30 days of

**Keywords:** Laparotomy, Outcomes, Predictors, Creatinine

surgery, correlating strongly with initial, maximum and minimum postoperative serum creatinine levels (r = 0.529, 0.437, 0.471; p = 0.004, 0.001, 0.002 respectively) which on further ROC curve analysis, demonstrated a high predictive capacity for mortality (AUROC: 0.846, 0.827, 0.805). Intraoperative blood transfusion volume negatively correlated only with minimum creatinine (r = -0.662, p = 0.027), while crystalloid infusion correlated positively with all three above mentioned creatinine levels (p = 0.455, 0.421, 0.348; p = 0.008, 0.005, 0.024). Analyses showed no correlations with preoperative creatinine levels.

**Conclusion:** Post-laparotomy serum creatinine predicts 30-day mortality. Intraoperative crystalloid infusion as against blood transfusion adversely affects postoperative creatinine.

**Epidemiology and pattern of presentation of keloids at a tertiary hospital in southern Nigeria.**

*Isamah C.P, Akpomiemie MO, Otene CI*

*Division of Plastic and Reconstructive Surgery, Department of Surgery, Delta State University Teaching Hospital, Oghara.*

**Abstract**

**Background:** Keloid scar is an unpleasant complication of wound healing. It could involve lesions that are cosmetically unpleasant, as well as symptomatic lesions. The common symptoms are pain and pruritus. There is paucity of data on the epidemiology and pattern of presentation in Nigeria. **Aim:** This study aimed to evaluate the epidemiology and pattern of presentation of keloid scar in a teaching hospital southern Nigeria.

**Method:** Retrospective review of patients attending Plastic surgery clinic between May 2021 and December 2023. The demographic and clinical characteristics of the patients were extracted from the records and analysed.

**Result:** A total of 37 patients were included, with a median age of 25 years. Most of the patients (54.1%) were females. Majority (64.9%) were single, with one quarter of the

patients had family history. Patients were largely from Urhobo (45.9%), Ukwuani (16.2%), and Ika (10.8%) were the leading ethnic groups. The median duration of keloid was 24 months. Ear (35.1%), chest (10.8%), suprapubic (10.8%), and jaw/neck (10.8%) were the common locations. Most of them had a single keloid (59.5%). Cosmesis (55.6%) was the commonest reason for presentation. Among those with symptoms, pruritus (38.9%), pain (27.8%) were the common symptoms. Ear piercing (32.4%), trauma (29.7%), and shaving (18.9%) were the leading causes of keloid. Less than half (43.2%) had received treatment prior to presentation, with most (75%) receiving a unimodal treatment.

**Conclusion:** The most common location of keloid was the ear, with piercing as the commonest cause. Pruritus is the leading symptom of keloid scar.

Keywords: Keloids, Epidemiology, presentation

## Blunt Abdominal Trauma In a Background Of Complete Situs Inversus – A Surgical Surprise And Challenges In Management

Clement Odion<sup>1</sup>, Emmanuel Ijiogbe<sup>1</sup>, Nathan Mukoro<sup>1</sup>, Vincent Odigie<sup>2</sup>, Clement Imoloamen<sup>1</sup>

<sup>1</sup>Department of Surgery, Irrua Specialist Teaching Hospital, Irrua

<sup>2</sup>Department of Surgery, University of Benin Teaching Hospital, Benin City

### Abstract

**Background:** Situs inversus is a condition in which the normal arrangement of the viscera is reversed to form a mirror picture of their usual anatomic position. This can occur with or without dextrocardia. In trauma, it can present a challenge in the management of the patient.

**Aim:** An incidental finding of complete situs inversus in a polytraumatized man and the need for full evaluation of trauma patients with observation of radiologic principles during chest x-ray and abdominal USS modalities.

**Methods:** The clinical records of the patient were reviewed.

**Results:** A 50-year-old commercial motorcyclist presented to the accident and emergency department 2 hours following a crash with a fast-moving oncoming vehicle. His complaints were right sided upper abdominal pain, distension, left sided chest pain and pain on the right thigh. Examination revealed features of polytrauma with left

pneumohaemothorax, blunt abdominal trauma and closed right femoral fracture. He was desaturating and thus had an emergency left closed tube thoracostomy drainage with good response. Post insertion chest x-ray showed evidence of lung expansion. Exploratory laparotomy revealed complete situs inversus of the intraabdominal organs alongside 2.5L of hemoperitoneum, shattered spleen, 1cm perforation on the antimesenteric border of the jejunum, approximately 80cm from the duodenojejunal junction. Splenectomy and incidental appendicectomy were done with repair of jejunal perforation. A postoperative chest radiograph however revealed dextrocardia.

**Conclusion:** Complete situs inversus is uncommon and usually unexpected in the evaluation of trauma patients. Preoperative clinical and radiological evaluations may however be helpful in making a preoperative diagnosis.

**Keywords:** Trauma, Abdomen, Situs inversus



**Preliminary Study on Incidence and Pattern of Traumatic Spine Injuries in South-South Nigerian Tertiary Centre**

*Campbell Francis C, Ejumudo Fred, Egede Sunday Obinna, Itelimo Olotu Victory, Davies Siji*  
*Neurosurgery Division, Department of Surgery, Delta State University Teaching Hospital, Oghara, Delta State, Nigeria.*

**Abstract**

**Background:** Traumatic spine injury (TSI) Constitutes a significant disease burden in developing countries and is associated with high disability rates, severe complications and mortality. This study aims to identify the incidence and pattern of TSI in a south-south tertiary hospital in Nigeria.

**Methodology:** The study was carried out among patients with TSI admitted to Delta State University Teaching Hospital, Oghara, Delta State, between November 2023 and June 2024. All patients were managed according to the Advanced Trauma Life Support (ATLS) protocol, and injury grading was done according to the American Spinal Injury Association (ASIA). Appropriate X-rays and neuroimaging were obtained to delineate level and injury characteristics. Data obtained was subjected to both descriptive and inferential statistics.

**Results:** There were 25 patients seen during the study period, accounting for 12.5% of all trauma admissions seen in DELSUTH over the study period. Mean age was  $46.26 \pm 15.98$

with male to female ratio of 3:1. Motor vehicular accident was the most common mechanism of injury (44%), while cervical spine was involved in 14 patients. Spinal cord injury was complete (ASIA A) in 56%. Common morphologic injury patterns seen were disc rupture/protrusion (25.4%), cord compression (16.9%) and vertebral body fracture (15.3%). 36% of the patients could not afford neuroimaging (spine CT/MRI), and 43.8% of those who could afford it obtained it late (>48 hours from presentation). 32% had cardiorespiratory disturbances that required support. Six patients had other associated injuries, and the most common was traumatic brain injury. Mean length of hospital stay was  $20.5 \pm 15.7$  days, and 30-day mortality was 12%.

**Conclusion:** Incidence of TSI was high among trauma patients in DELSUTH, and most were complete and involved the cervical spine. Access to essential neuroimaging was delayed or unaffordable.

**Keywords:** traumatic spine injury, DELSUTH, Spinal cord injury,

**Relationship Between Prostate Volume, PSA Values And Lower Urinary Tract Symptoms Among Adult Community-Men In Port Harcourt.**

*Vitalis Ofuru, Jack Omodu, Anselm Iyama, Okigbeye Danagogo*

*Faculty of Clinical Services, Rivers State University, Port Harcourt.*

**Abstract**

**Background:** Baseline prostate volume and Prostate specific antigen (PSA) level are important in progression of BPH and have correlation to urine flow. They determine response to medical therapy and predict incidence of acute urinary retention. In this study we evaluated the relationship between prostate volume, serum PSA and LUTS among adult males in a community.

**Method:** This was a prospective community-based study among men 40 years and above between 2023 and 2024. LUTS were assessed with IPSS. Serum PSA of participants was determined with ELISA method. Prostate size was determined with transabdominal USS probe. Chi-square test and ANOVA were used to determine relationship between prostate size and PSA in mild, moderate and severe LUTS. Correlation between prostate size and PSA was done using spearman's correlation

coefficient. Statistical significance was determined at  $p$  value  $\leq 0.05$ .

**Results:** PSA distribution showed a significant difference across severity levels ( $\chi^2 = 18.52$ ,  $p = 0.005$ ), participants with mild LUTS having PSA volumes  $< 4$  compared to those in the moderate and severe LUTS. Similarly, there was a significant discrepancy in the distribution of prostate enlargement ( $\chi^2 = 35.81$ ,  $p < 0.0001$ ), with a higher proportion of participants in severe LUTS category exhibiting severely enlarged prostates compared to those with mild and moderate symptoms. There was statistically significant positive correlation ( $r = 0.17$ ,  $p = 0.0001$ ) between PSA and prostate size in the subjects.

**Conclusion:** Both PSA and prostate size significantly determine severity of LUTS and prostate size positively correlates PSA value.

**Keywords:** PSA, Prostate-size, LUTS, Correlation, community-men.

**Preliminary Study On Estimating Surgical Blood Loss Using Hemoglobin And Platelet Changes In Laparotomy Patients At Delta State University Teaching Hospital**

*Ejeheri OD, Onwubolu EO, Akpo EE*

*Department of Surgery, Delta State University Teaching Hospital, Oghara*

**Abstract**

**Introduction:** When assessing methods to lessen operative haemorrhage, surgical blood loss is an essential consideration. Quantification of blood loss is still imprecise and unreliable.

**Objective:** The aim of this study was to compare postoperative haemoglobin change, platelet change and the ratio of both with the visual estimation of postoperative blood loss by anaesthesiologists and surgeons.

**Methods:** In a six-month prospective cohort study at Delta State University Teaching Hospital, platelet counts and haemoglobin concentrations of 21 laparotomy patients who were not transfused, were assessed pre- and postoperatively. Estimated blood loss (EBL), determined visually by anaesthesiologists and surgeons, were correlated with the haematological

parameters using Pearson's correlation (r) at  $p < 0.05$  significance.

**Results:** Anaesthesiologists and surgeons recorded average EBLs of  $262 \pm 161$  mL and  $192 \pm 156$  mL, respectively. Significant correlations were found between their EBLs ( $r = 0.888$ ,  $p = 0.000$ ). Changes in hemoglobin and platelet count did not correlate significantly with EBLs, but their ratio showed moderate negative correlations with both anaesthesiologists' and surgeons' EBLs ( $r = -0.656$  and  $-0.648$ ;  $p = 0.001$  and  $0.001$ , respectively).

**Conclusion:** The ratio of haemoglobin change to platelet change may be a promising novel approach to surgical blood loss estimation. Further research comparing this with other standardised models is necessary.

**Keywords:** Surgical blood loss, Hemoglobin, Platelets, Laparotomy

**Correlation Between C-Reacting Protein and Injury Severity Score in Blunt Abdominal Injury**

*Ijiogbe E<sup>1</sup>, Odigie V<sup>2</sup> Odion C<sup>1</sup>. Ehiagwina L<sup>1</sup>, Ijiogbe T.<sup>1</sup> Gayowvi B<sup>1</sup>*

<sup>1</sup>*Department of Surgery, Irrua Specialist Teaching Hospital, Irrua.*

<sup>2</sup>*Department of Surgery, University of Benin Teaching Hospital, Benin City.*

**Abstract**

**Background:** Blunt abdominal injury (BAI) is a significant cause of morbidity and mortality globally. The management is a challenge in rural settings, where necessary tools for accurate assessment are unavailable. During trauma, C - reactive protein (CRP) is increased this often corresponds to severity of injury.

**Aim:** To correlate CRP with injury severity score in BAI

**Methodology:** This was a year prospective consecutive study of 58 patients with BAI presenting to ISTH. Diagnosis of BAI was made with clinical and radiological evaluation. Serial CRP was done at presentation, 24, 48 and 72 hours using *i-chroma 11 Boditech readers* and values correlated with severity of BAI determined using ISS. Data was analyzed using IBM-SPSS-26. Statistical significance as tested using t-test and Chi-square where necessary and  $P < 0.05$  were considered significant. Correlation between variable was determined using Pearson Correlation.

**Results:** There were 70.69% males and (29.31%) females. Age mostly affected was 21-40 years (56.90%). The youngest and oldest participants were 19 and 58 years. Students were mostly affected (82.76%) with (56.90%) in tertiary institution.

Road Traffic Accident (RTA) was the most common cause of BAI, (84.50%).

There was significant direct correlation between CRP and ISS. CRP ( $R^2 = 0.83$ ;  $\beta = 0.82$ , 95% CI: -6.39345 -3.094815;  $P < 0.0001$ ). At 0 hour ( $\rho = 0.82$ ,  $p = 0.01$ ), 24 hours ( $\rho = 0.86$ ,  $P = 0.02$ ), 48 hours ( $\rho = 0.81$ ,  $P = 0.01$ ), and 72 hours ( $\rho = 0.82$ ,  $P = 0.01$ ).

Diagnostic value of CRP was evaluated using AUC. The AUC was 97.0% -100% with sensitivity of 100% and specificity 96%-100%.

**Conclusions:** There is a positive correlation between CRP and severity of BAI using ISS. C-Reacting protein has a high sensitivity (100%) and specificity (96%-100%) in BAI.

**Keywords:** Blunt abdominal injury, C-reactive protein, Injury severity.

**Colostomies: Indications and Postoperative Outcomes at the Delta State University Teaching Hospital, Oghara.**

*Pat-Edi OC, Enekhai R, Ejeheri OD, Akpo EE, Oriakhi SN*

*Department of Surgery, Delta State University Teaching Hospital, Oghara.*

**Abstract**

**Introduction:** In order to either decompress an obstructed colon or divert feces, colostomies are among the most frequently performed life-saving surgeries in the world. The indications are diverse ranging from trauma to malignancy. Associated with the procedure are peculiar complications that may occur.

**Objectives:** This study aimed to identify the common indications, types, and outcomes of colostomies carried out at the Delta State University Teaching Hospital.

**Methodology:** A three-year prospective cohort research study was conducted at the Delta State University Teaching Hospital in Oghara between January 2021 and December 2023.

**Results:** In the course of three years, 23 patients had colostomies. Fifteen (65.2%) of

these were male. The age range was 0–70 years old, with a mean age of  $41 \pm 22$  years. Fifty-seven percent of the procedures were performed to treat malignant conditions. Divided colostomies were the most often performed kind of colostomy ( $n = 19, 82.6\%$ ). Of all the colostomies, 4 (17.4%) were loop colostomies. Six complications in total were observed, consisting of three surgical site infections and three stoma-related complications. The mortality rate was 26.1% ( $n = 6$ ).

**Conclusion:** In our setting, the most common indication for colostomy is colorectal cancer. The morbidity and mortality that follow this procedure are high. Increasing awareness aiming at early identification of colorectal cancer is advisable.

**Keywords:** Colostomy, Indications, Types, Complications, Mortality rate.