Journal of the Nigerian Surgical Research Society

CONFERENCE PROCEEDINGS

Proceedings at the 82nd conference of the Nigerian Surgical Research Society held at the Delta State University Teaching Hospital between November 30 and December 2, 2023.

Comparing surgical site infection in secondary peritonitis laparotomy wounds irrigated with normal saline versus 1% povidone iodine.

L.A Ehiagwina[1], J Kpolugbo[1], A.E Dongo[1], V Odigie[2].
1. Department of Surgery, Irrua Specialist Teaching Hospital, Irrua
2. Department of Surgery, University of Benin Teaching Hospital, Benin City

Abstract

Background: Surgical site infection (SSI) in secondary peritonitis laparotomy wounds is a surgical challenge to most contemporary surgeons because of its morbidity/mortality and health care cost. Various wound irrigation has been suggested to reduce this.

Aim: To study the effects of irrigating laparotomy wounds of secondary peritonitis with normal saline(N-S) on SSIs compared to using 1% povidone iodine (PVP).

Methods: This was a randomized prospective study. Sixty-four(64) patients who met the criteria were divided equally into two groups A and B. Group A had upper gastrointestinal pathologies as site. Group B had lower gastrointestinal pathologies as site. Both groups were further subdivided into A1, A2, B1,B2 for irrigation with 250mls of normal saline or 1% povidone iodine respectively.

Results: The mean age was 43.9 ± 16.30 years and male: female ratio was 2:1. Overall, there were 16 (25%) cases of SSI, 14(21.88%) were superficial, 1(1.56%) deep and organ space respectively. Of the superficial, 7(50%) occurred in each arm, while 1(12.5%) organ space and deep SSI in each arm. The observed difference was not statistically significant(P=1.00).

E. coli was the most prevalent organism in the peritoneal and wound culture with a concordance rate of 68.75%.

SSI was 25% in both arms of the study. It is the authors finding that N-S or 1% Povidone iodine are equally efficacious and produce the same SSI in secondary peritonitis and are both recommended.

Conclusion: The SSI rate after laparotomy for secondary peritonitis in this study was 25% and equal in both study arms.

Keywords: Keywords: Normal Saline, Povidone Iodine, Surgical Site Infection, Secondary Peritonitis, Wound Irrigation

The effect of cerebrospinal fluid protein concentration on shunt outcome in children with hydrocephalus.

Ejumudo O. Fred, Bankole Olufemi, Ojo Omotayo, Jolayemi Edwards

Department of Surgery, Neurosurgery Division, Lagos University Teaching Hospital, Idi Araba, Lagos State, Nigeria.

Abstract

Background: Ventriculoperitoneal(V-P) shunt is the mainstay of treatment of Hydrocephalus. There are conflicting reports on the effect of cerebrospinal fluid (CSF) protein concentration on V-P shunt outcomes.

Aim: To determine if there is a correlation between CSF protein concentrations and V-P shunt outcome.

Methods: This was a prospective study carried out on pediatric patients undergoing V-P shunt insertion who met the inclusion criteria. The patients were assessed pre and intraoperatively.

Assessment of V-P shunt patency was done at six months or when the subjects presented with clinical evidence of shunt failure. The primary outcome was the need to revise the shunt within six months.

Results: A total of 44 patients had V-P shunt insertion. There were 19 males and 25 females with a male/female ratio of 1:1.3. The mean age at presentation was 3.2 ± 2.3 months with an age-range of 28 days to 9 months. Their mean age at surgical intervention was 4.5 ± 1.7 months with an age-range of 1 month to 9 months. CSF protein concentration ranged from 0.02g/l-4g/l with a mean of 0.78 ± 1.1g/l. 43% of the subjects had elevated CSF protein, 25.0% had normal CSF protein and 31.8% had low CSF protein levels. V-P shunt obstruction was seen in 4.5% of study participants. There was no statistically significant difference between CSF protein concentration and V-P shunt obstruction (P = 0.719)

Conclusion: CSF protein levels less than or equal to 4g/l did not correlate significantly with a tendency to shunt hardware obstruction.

Keywords: Hydrocephalus, Cerebrospinal Fluid Protein Concentration, Pediatric Population, Ventriculoperitoneal Shunt Outcome.

Effect of topical application of tranexamic acid on post-mastectomy bleeding and seroma formation in adult female patients.

Stanley N. Ideh[1], Clement O. Osime[1], Omorodion O. Irowa[1], Vincent I. Odigie[1], Bettyna U. Ideh[2]

1. Department of Surgery, University of Benin Teaching Hospital, Benin City, Edo State, Nigeria.

2. Department of Obstetrics and Gynaecology, University of Benin Teaching Hospital, Benin City, Edo State, Nigeria.

Abstract

Background: Post-operative bleeding, hematoma, and seroma formation may cause patient discomfort, impede wound healing, predispose to surgical site infection, impact on cosmetic outcome and increase cost of care. Topical application of tranexamic acid, may decrease these.

Aim: The aim of this study was to determine the effect of topical application of tranexamic acid on post-operative bleeding and seroma formation in patients that had modified radical mastectomy.

Methodology: Prospective randomized controlled study of 52 female patients who had Auchincloss modified radical mastectomy for breast cancer in UBTH. There were two groups A, B. Group A had 1000mg (40ml of 25mg/ml) of tranexamic acid applied topically to their wound. Group B had placebo (40ml of normal saline). Exit period was 30-days post mastectomy. Daily and cumulative wound drainage, presence of seroma and any complications were documented. Data was analysed using SPSS version 22.0. Groups A and B were compared, p value < 0.05 was considered statistically significant.

Results: Mean age of participants was 47.7± 10.9 years. Group A had lower mean post-operative bleed (160.15ml vs 174.08ml, p= 0.427), lower mean cumulative wound drainage (762.50ml vs 871.62ml, p= 0.542) and lower seroma (3.8% vs 23%, p= 0.099). They were not statically significant.

Conclusion: Topical tranexamic acid did not have a significant effect on post-mastectomy bleeding and seroma formation.

Keywords: Breast cancer, mastectomy, topical tranexamic acid, postoperative bleeding, seroma.

Role of laparoscopy in the management of paravertebral/psoas abscess-a pilot study

Obonna George Chilaka,Ede J K , chikani Mark, Eze T C ,Onyebulu L O

1.University of medical sciences,Laje road,Ondo city,Ondo State.

2.University of Nigeria Teaching Hospital, Enugu.

Abstract

Background: Psoas abscess said to be rare world-wide may not be a rare disease in our environment. It is a debilitating illness that can lead to neuromuscular disorder ,sepsis and death. The current first line treatment of minimal access percutaneous catheter drainage under image guidance is fraught with many challenges, thus, minimal access laparoscopic drainage has come to the rescue to avert resorting to open surgical drainage with its attendant morbidity and mortality

Aim: to showcase the efficacy of the novel technique of laparoscopy in the management of para-vertebral abscess.

Methods: this is a prospective study starting from June 2023 in which consecutive patients were determined by inclusion and exclusion criteria. Two patient involvement using the laparoscopic technique. Clinical outcomes were evaluated based on the changes observed on preoperative and postoperative physical examination, inflammatory marker testing, CT scan and or MRI

Results: The involved patients are being followed up. All surgeries were successfully completed without intraoperative complications. The two patients experienced immediate relief of their symptoms which included fever, loin and back pain, flexion deformity of the lower limb and inability to stand and walk. The preoperative ESR and C-reactive protein values were observed to have a downward trend. No abscesses were found on C-T scan/MRI examination

Conclusion: although many studies have been done on minimal access percutaneous and open drainage of paravertebral abscess, minimal access laparoscopic surgical drainage is a novel safe alternative technique in the treatment of paravertebral/psoas abscess.

Keywords: Psoas, Paravertebral abscess, Minimally invasive surgery, laparoscopy.

Use of inflammatory biomarkers in improving the accuracy of diagnosis of acute appendicitis

C Odion[1], V Odigie[2], AE Dongo[1], J Kpolugbo[1], C Imoloamen[1], AA Okomayin[1], E Tagar[1]

1. Department of Surgery, Irrua Specialist Teaching Hospital, Irrua

2. Department of Surgery, University of Benin Teaching Hospital, Benin City

Abstract

Background: The diagnosis of acute appendicitis is largely clinical and once established, management ensues. However, diagnostic difficulties may arise, leading to negative appendicectomies of 15% – 30% if surgery is effected. Attempts are being made to reduce this high negative appendicectomy rate.

Aim: To analyse the roles of White Blood Cell (WBC) count and C-Reactive Protein (CRP) in improving the accuracy of diagnosing acute appendicitis.

Methods: This was a cross-sectional, prospective study on Sixty-six (66) patients who presented to the accident and emergency ward of Irrua Specialist Teaching Hospital (ISTH) and diagnosed clinically as acute appendicitis. WBC count and CRP were done for all recruited patients preoperatively. All recruited patients had appendicectomy and the appendixes sent for histology.

Results: The mean age was 30 years ± 14 SD and male: female ratio was 1:1.8. The negative appendicectomy rate in this study was 19.7%. The diagnostic accuracy, sensitivity, specificity, and positive predictive value for WBC count were 73%, 72%, 77% and 93% respectively. The diagnostic accuracy, sensitivity, specificity and positive predictive value for CRP were 80%, 79%, 85% and 95% respectively. Combining both markers gave accuracy, sensitivity, specificit, and positive predictive value of 91%, 91%, 90% and 97% respectively. With ROC curve construction, CRP was a slightly better biomarker than WBC (AUC CRP: 0.79, p=0.0012; AUC WBC: 0.76, p=0.028).

Conclusion: Combined WBC and CRP improved predictive ability for acute appendicitis. Overall, CRP is a slightly better biomarker than WBC in predicting acute appendicitis.

Keywords: Acute Appendicitis, Appendicectomy, Negative Appendicectomy, White Blood Cell Count, C-Reactive Protein.

Epidemiology and pattern of extremity amputations at the delta state university teaching hospital, Oghara. A preliminary report.

Dioru UN[1]*., Odatuwa-Omagbemi DO*[1]*, Okpara CJ*[1]

[1]Department of Orthopeadic and Trauma, Delta State University, Oghara, Delta State

Abstract

Background: Limb amputation is one of the oldest and most commonly performed surgical procedures. Indications and pattern may vary from study to study from various centres and even within same centre over time. The last study on amputation done in our centre was about 10 years.

Aim: To review the present pattern of limb amputations in our centre in order to detect possible changes over the past 10 years.

Methods: A prospective 24 months ongoing study (from July 2022 to end June 2024) at the Delta State University Teaching Hospital (DELSUTH). Data on age, gender, the indications for amputation, levels of amputations, the short-term outcomes, etc were recorded. Data were analysed using SPSS version 21 software.

Results: Thirty-seven limb amputations (31 lower limbs and 6 upper limbs) were performed within the period. There were 19 males and 18 females (M:F ratio is 1.06: 1.00). Mean age is 57 $\pm$ 12.3 yrs. Modal age group is 45-65yr. The most common indication for amputation was diabetic foot lesion (67.6%), followed by post traumatic gangrene (10.8%). The commonest level of amputation was below knee (17 patients – 45.95%), followed by above knee amputations (9 patients – 24.32%). Twenty-one (56.76%) of the amputation stumps healed primarily. One (2.7%) of the patients died.

Conclusion: Diabetic foot lesion remains the commonest indication for amputation followed by trauma however with some variations in proportion. The proportion of females has increased over time, while the mean age is still similar.

Keywords: Epidemiology, Amputation, Delta State, Nigeria

Comparing tissue adhesive (2 – octylcyanoacrylate - oca) to subcuticular vicryl skin closure -svc- following excision of benign breast lumps

V Ugwi [1], V Odigie[2], O Irowa[2].

1. Department of Surgery, Delta State University Teaching Hospital, Oghara.
2. Department of Surgery, University of Benin Teaching Hospital, Benin.

Abstract

Introduction: Benign Breast lumps are common in young females worldwide. Treatment involves excisional biopsy with a resulting scar. Improving the aesthetics of breast scars is a challenge to surgeons.

Methodology ;70 patients who met the criteria were allocated by balloting skin closure either OCA or subcuticular vicryl 3/0 closure (SVC) following breast lumpectomy. Cosmetic outcomes were assessed using the Hollander Wound Evaluation Scale (HWES) and Visual Analogue Scale (VAS). Wound management, complication rates, patient's satisfaction were also analysed.

Results; Studied 67 patients. Age 18 - 49 years. Mean age both groups 29.9 ± 6.4 years. 63 patients -94.0% - unilateral lesions, 4 (6.0%) patients -bilateral lesions. 34 wounds closed using OCA, 37 with SVC. -71 lesions. Mean HWES score were 5.3, 5.2 for OCA and SVC groups ($p = 0.54$). The mean VAS score was 7.7, 7.6 for OCA and SVC groups ($p= 0.23$). Mean patients' satisfaction score was 7.5 and 7.2 for OCA and SVC groups respectively. p-value 0.10. Mean duration of wound closure OCA, SVC groups were 3.5 and 6.3 minutes ($p < 0.00$). Wound complications were, haematoma formation and serous discharge ($p >0.05$).

Conclusion: SVC has no cosmetic advantage over OCA both should be incorporated in breast skin closure

Keywords: Breast Lumps, Octylcyanoacrylate, Vicyrl Suture, Cosmesis

The role of intravesical 1% povidone iodine in reducing surgical site infection following open simple prostatectomy

K Iyamu [1] , S Osaghae[2] , C Nwajei[1]

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

Abstract

Introduction: Surgical Site Infections (SSI) following open prostatectomy is common and can account for as much as 12% - 36% of post prostatectomy complications. It can prolong hospital stay, compromise surgical outcome and may even lead to repeat surgery.

Aim: The aim of this study was to determine the role of preoperative bladder irrigation with 1% povidone iodine in reducing post transvesical prostatectomy SSI.

Methodology: A prospective randomized study. Sixty patients were randomized into two groups. One group had their bladder irrigated with povidone iodine for 10 mins, the other had normal saline before surgery. The patients were followed up for 30 days for SSI.

Results: The overall incidence of SSI was 15.0%. SSI in the 1% povidone iodine group was 6.7%, and 23.3% in the normal saline group, not statistically significant (p =0.145). Escherichia coli was the commonest organism isolated from the culture of infected wounds (34.0%). SSI also contributed to prolonged hospital stay.

Conclusion Preoperative bladder irrigation with 1% povidone iodine solution reduces SSI following open simple prostatectomy and reduced hospital stay as compared with normal saline irrigation.

Keywords: Transvesical Prostatectomy, Surgical Site Infections, 1% Povidone Iodine, Pre-operative Bladder irrigation.

Efficacy of tranexamic acid in reducing blood loss in major lumbar spine surgery; randomized controlled trial in a sub-Saharan centre

Campbell Chukwuebuka Francis[1,3], Okwuoma Okwunodulu[1], Inojie Moses[2] Ndubuisi Chika Anele[1], Ohaegbulam Samuel[1]

[1]Department of Neurosurgery, Memfys Hospital, Enugu, Nigeria.

[2]Department of Surgery, Federal Medical Centre, Asaba, Delta State, Nigeria.

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

Abstract

Background: Tranexamic acid (TXA) reduces blood loss and transfusion requirements in various specialities but use in spine surgery is rare in our environment, and none is conducted in our subregion in major spine surgery.

Objective: Efficacy of tranexamic acid (TXA) in reducing blood loss and transfusion requirements (TR) in major spine surgery for degenerative spine diseases (DSD)

Methodology: This was a parallel superiority randomized clinical trial carried out in Memfys Hospital Enugu, Nigeria, comparing the efficacy of TXA versus placebo for multilevel lumbar laminectomy and fixation surgeries for DSD. Consenting patients who met the inclusion criteria were allocated into two groups using stratified randomization method. The patients and surgical team were blinded. Group A (treatment group) received intraoperative TXA (2 one-gram doses given 3 hours apart), while Group B (control arm) received normal saline. The calculated blood loss (CBL) using the haemoglobin balance method (primary outcome) and TR (secondary outcome) were documented for both groups. The intention to treat principle was utilized for analysis.

Results: Sixty-four patients (32 in each group) completed the study. There was male preponderance 1:1.3 with a mean age of 55.7±11.9 years. No statistically significant difference was noted between both groups' baseline and surgical procedure characteristics, including Age, BMI, surgery duration, laminectomy and fixation levels. There was reduction in CBL by 21.7% with TXA use, which was statistically significant (1530.67 vs 1955.30 MD 424.6mls CI 39.7-809.6 p=0.034), and the difference persisted after controlling for the covariates using ANCOVA method. Group A had less TR (1.2vs2.3 units CI 0.25-1.90 p=0.009) and shorter hospital stay (8.1 vs11.8 days CI 0.73-6.67 p=0.017). There was no increase in the frequency of adverse effects related to TXA use.

Conclusion: TXA is a practical and effective method of reducing blood loss and transfusion requirements for major lumbar spine surgery for DSD in our subregion.

Keywords: Tranexamic Acid, Degenerative Spine Disease, Laminectomy, Fixation, Calculated Blood Loss.

Landmark versus ultrasound technique for subclavian venous catheterization in intensive care unit.

Akpobi[1] O.H, Ejiro B.A[1], Jasper A.O[1]

[1]Department of Anaesthesia and Intensive Care, Delta State University Teaching Hospital, Oghara.

Abstract

Background: Central venous catheterisation (CVC) is essential in the ICU for various purposes such as hemodynamic monitoring, administration of drugs, fluids and parenteral nutrition, placement of a difficult peripheral IV cannula and hemodialysis. Ultrasound guidance could be beneficial in placing CVC by improving the success rate, reducing the number of needle passes, and decreasing complications.

Objectives: To compare the success rate of subclavian vein catheterisation between ultrasound-guided (USS) with classical landmark-guided techniques (LMT) in ICU**.**

Methodology: This prospective, randomised study was conducted at the Delta State University Teaching Hospital, Oghara, Delta State, Nigeria. Fifty four eligible patients were randomized into USS or anatomical LMT. The primary outcome was the success rate, while secondary outcomes included the number of attempts, access time, and complications from both techniques**.**

Results: The success rate reported was 96.3% vs 100%, comparing the landmark vs USG with (p=0.313). The mean access time for the USS group was 29.43±10.26sec while it was 53.00±12.93 sec for the LMT. The access time was significantly different (p=0.001) between both groups. Only one attempt was required in the USS group while four patients required two or more attempts in the LMT. This was significantly higher with the landmark group (p = 0.003).

Conclusion: The placement of subclavian vein catheters with landmark technique was associated with high success rates and was found to be comparable to the ultrasound technique with few complications. Also, the number of attempts and access time were reduced in the USG with no complication.

Keywords: Central Venous Catheterization, Ultrasound Technique, Subclavian Vein, Intensive Care Unit

An analysis of herniotomies at a tertiary hospital in Delta State, Nigeria: a prospective study

Ojie EI[1,2] *Odion-Obomhense HK*[1]

[1]*Department of surgery, Delta State University Teaching Hospital, Oghara, Delta State.*

[2]*Department of Family Medicine, Delta State University Teaching Hospital, Oghara, Delta State.*

Abstract

Background: Herniotomies for inguinal hernias and hydroceles are among the most common surgical procedures carried out by paediatric surgeons.

Aim: The purpose of the study was to assess the trend of paediatric inguinal herniotomies in Delta State University Teaching Hospital.

Method: This prospective 4-year study included all paediatric patients (new born to 14years) who had inguinal herniotomies at Delta State University Teaching Hospital, Oghara, Nigeria, between 2019 and 2023.

Results: A total of 77 children were seen over the stated period and male-to-female ratio was 10:1. The right side (55.8%) had a higher prevalence, while left side was 44.2% of cases. At the time of operation, the mean age was 38.5months. In 10.4% of the children, herniotomies were performed for hydroceles.

Conclusion: Herniotomies were indicated in this study much more in males than females. Most of the procedures were done for right sided inguinal hernias.

Microbiology of wound infections in a tertiary hospital in Delta State, Nigeria

V Itelimo, T Ejeheri, F Campbell, E Akpo

Department of surgery, Delta State University Teaching Hospital, Oghara.

Abstract

Background: Mortality and morbidity rates are higher when wound infections occur. The proper selection of antibiotics is facilitated by the first testing of microorganisms by culture and sensitivity. This impedes the emergence of antibiotic resistance and halts the progression of illness.

Aims: The purpose of this single-centered study was to assess the bacteriological profile and patterns of antibiotic sensitivity of wound infections.

Materials and methods: A total of 111 patients who were suspected of having a wound infection were included in the study. We took note of their demographic information. Wound swabs from the patients were processed micro-biologically, undergoing Gram staining, culture, and testing for antibiotic sensitivity.

Results: With a 1:1.3 male-to-female ratio, the majority of participants (55%) were young adults (18 to 44 years). Bacteria were isolated from 85.6%. The only Gram-positive organism was *Staphylococcus aureus*, found in 18% of all patients (n=20). Fifty-four isolates (48.6%) exhibited multi-drug resistance. *Proteus spp.* (n=17, 15.3%) though found to be the second most common organism, exhibited the highest level of multi-drug resistance (n=14, 82.4%). *Staphylococcus aureus* was the most prevalent organism (n=20, 18%) with Multi-drug resistance of 44% (n=8).

Conclusion: There is a rising rate of antimicrobial resistance to commonly used antibiotics. We recommend adequate adherence to the principles of antibiotic use too limit the spread of antimicrobial resistance.

Keywords: Antibiotics, Antimicrobial resistance, prospective, microorganism.

Pattern of presentation of surgical emergencies among adults in a tertiary hospital in Southern Nigeria

Agbajor ST[1], Ejeheri OD[1], Akpo EE[1], Oriakhi SN[1]

[1]Department of surgery, Delta State University Teaching Hospital, Oghara.

Abstract

Introduction: A large portion of the surgeon's workload consists of surgical emergencies. Given the difficulties facing sub-Saharan African emergency systems—particularly those that rely on surgical intervention—data about the number of admissions brought on by surgical emergencies is necessary. Analysing surgical emergency trends can help create specific recommendations for better treatment.

AIMS: The aim of this study was to determine the sociodemographic composition and the presentation pattern of surgical emergencies at the Delta State University Teaching Hospital located in Oghara.

Materials and methods: From January to December 2022, we conducted a prospective one-year study of all emergency surgical admissions at Delta State University Teaching Hospital, Oghara.

Results: There were 216 surgical emergencies that presented during the period of study. Males made up 43.5% and females, 56.5%. Between the ages of 18 and 44, young adults accounted for nearly half (47.2%) of all emergencies, with a mean age of 48.7±18.6 years (range from 18 to 96 years). Only about one-third (32.9%) of emergency presentations in the survey were classified as traumatic, with spinal injuries accounting for the least common trauma (1.4%) and extremity injuries accounting for the most (11.6%). With adhesive small bowel obstruction being the most frequent pathology (36%) of general surgical emergencies, this specialty accounted for most (46.3%) of the non-traumatic emergencies. While non-traumatic emergencies were more common in all age categories and both genders, patients with traumatic emergencies were more likely to be young adults (p=0.000) and to be male (p=0.007).

Conclusion: The survey showed that women were more likely to present with surgical emergencies and that most of these cases were non-traumatic, though young men were more prone to traumatic incidents.

Keywords: Surgical Emergencies, Traumatic Emergencies, Non-Traumatic Emergencies, Trauma Prevalence

Ultrasound guided bilateral erector spinae plane block versus wound infiltration with plain bupivacaine for post-operative pain relief following myomectomy under spinal anaesthesia

Odukuye Rukevwe Martin[1], *Ejiro, Ben Akpochafor*[1], *Idehen, Hanson O* [2]

[1] *Department Of Anaesthesia Delta State University Teaching Hospital Oghara Delta State Nigeria*

[2] *Department Of Anaesthesia University Of Benin Teaching Hospital Ugbowo Edo State Nigeria*

Abstract

Objective: Post-operative analgesic efficacy of ultrasound guided bilateral erector spinae plane block compared with wound infiltration in patients undergoing myomectomy under spinal anaesthesia.

Background: Opioid analgesia is the gold standard for managing post-myomectomy pain, but its use is limited due to accessibility issues and opioid-associated complications. Techniques like surgical site wound infiltration and regional anesthesia have been used to overcome these challenges. The ultrasound guided erector spinae plane block is a recent discovery for post-operative pain relief in various surgeries..

Methodology: The study involved patients aged 18-65 with ASA I or II and divided into two groups. The ES group received an ultrasound-guided bilateral erector spinae plane block with 40ml of 0.25% bupivacaine before spinal anesthesia. The WI group received wound infiltration with 40ml of 0.25% bupivacaine at the end of surgery. The study recorded various factors such as time to first analgesic request, pain scores, total postoperative pentazocine consumption, haemodynamic variables, complications, and patients' satisfaction. The results showed that these factors significantly influenced the outcomes of the surgery.

Results: The study involved 34 patients in the ES group and 35 in the WI group. The mean time to first analgesic request postoperatively was shorter in the ES group (141.3 ± 15.7 min) compared to the WI group (297.6 ± 17.8 min). The ES group had significantly lower numerical rating scale scores at rest ($p = 0.044$, $p = 0.032$, $p < 0.001$ and $p = 0.009$). Postoperative total pentazocine consumption was higher in the ES group (38.7 ± 12.4 mg) compared to the WI group (86.7 ± 13.6 mg).

Conclusion: The study found that ultrasound-guided bilateral erector spinae plane block is more effective than wound infiltration in patients undergoing myomectomy under spinal anaesthesia due to increased time to first analgesic request, reduced pain, lower opioid consumption, and improved patient satisfaction.

Keywords: Ultrasound guided, Erector spinae, wound infiltration, Post operative pain, Opioid, Analgesia, Numerical rating score.

Admission and mortality pattern of surgical patients in the intensive care unit at delta state university teaching hospital, Nigeria: a 4-year prospective study

Nworie SI, Iwegbue PC, Ejeheri OD, Akpo EE, Nwajei C

Surgery Department, Delta State University Teaching Hospital, Oghara. Delta state.

Abstract

Introduction: To reduce morbidity and mortality, high-risk patients receive critical care in the intensive care unit (ICU). This is vital to the care of surgical patients, who may need closer observation and more advanced management than patients in non-critical care units and regular admission wards. Compared to rates in more developed nations, mortality rates in ICUs in underdeveloped nations are high. The quality of treatment may be raised by assessing the results of surgical patients in the ICU who undergo operative or non-operative care.

Objective: The objective of this study was to examine the patterns of surgical patient admissions and outcomes in the ICU at Delta State University Teaching Hospital.

Methods: This study was a prospective, descriptive review that lasted four years and included all surgical patients admitted to Delsu-TH's ICU between March 1, 2019, and May 20, 2023. Information was gathered from the ICU ward's admission and discharge records. Frequencies and percentages were used to express the data after analysis. The chi-squared test was utilised to compare categorical parameters, with a significance level of $p < 0.05$.

Results: Over the course of the four years, 199 patients were admitted in total. There were 122 (61.3%) male patients and 77 (38.7%) female patients. The mean age was 44.8±19.1 years. Young people (18—44 years old) accounted for the largest percentage of admissions (46.2%), while children and teenagers made up the smallest share (5.5%). Of these, 12.1% received non-operative management and 87.9% received operational care; 69.3% were non-traumatic and 30.7% were traumatic. During the time under study, the mortality rate was 25.1%. There was no statistically significant correlation seen between the mortality rate and age ($X^2=2.14$, $p=0.71$), sex ($X^2=0.31$, $p=0.58$), operative treatment ($X^2=0.24$, $p=0.63$), or trauma ($X^2=0.90$, $p=0.34$).

Conclusion: The study revealed a high mortality rate among surgical patients admitted into the ICU. A large proportion of the admissions consisted of young males. While attempts are made to improve the quality of care, further research is needed to determine the major cause of death in the ICU.

Keywords: Surgical patients, mortality, mortality patterns, intensive care unit, ICU mortality rate, admission patterns.