



## scientific conferences

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**Hypothesis: Perforating appendicitis is a separate disease.**

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The hypothesis that acute appendicitis may exist in two forms, the perforating and self-limiting, may revolutionize the management of the disease. In clinical practice, it is not unusual to find cases of perforated appendicitis without necrosis in patients presenting within 48 hours of onset of symptoms. In contrast, other patients may experience pain for three or more days and at operation are found to have only an inflamed appendix without perforation. Such an observation means that some of the patients of acute appendicitis do not progress through the classic phases of catarrhal, phlegmonous, gangrene and perforation. It is on such basis that we speculate that perforating appendicitis and inflamed are different disease entities.

A retrospective study of 260 patients with acute appendicitis seen between 1995 and 1999 was done. It was observed that the annual incidence of suppurative appendicitis fluctuated whereas for perforated appendicitis, it remained constant. Presence of faecolith in the appendix was noted in 20% of patients with perforated appendicitis as compared to only 4% of those with inflamed appendicitis, difference that was statistically significant although there was no difference in the average diameter of the lumen. Perforated appendicitis was more frequent in males than in

females (Male: Female ratio =3.3:1). However, no difference in sex distribution was found in suppurative appendicitis. The findings seem to suggest that perforated appendicitis and inflamed or suppurative appendicitis are two different diseases.

### **Acute abdomen as seen in Beira Central Hospital, Mozambique.**

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Acute abdomen is one of the most common surgical emergencies in Africa. The gut can obstruct, perforate, or strangulate which pathologies can result in infection of the peritoneal cavity by the intestinal organisms. Unless surgery is performed within a few hours after the onset of symptoms, the patient has a high risk of dying. The objective of this study was to determine the incidence of acute abdominal in Beira Central Hospital, Department of Surgery.

This was a descriptive retrospective study based on the data obtained from the surgical registration books, patients' files and operation registers of patients seen with acute abdomen at the Hospital between 1st January 1999 and 30th August 2000.

A total of 218 patients were studied. There were 184 males and 38 females. The majority of patients (82.6%) were aged between 16 and 50 years. Only 11 (5.0%) were aged below 15 years and 27 (12.4%) were above 50 years of age. Most of the patients (92%) were blacks.

Sixty-three of the patients were screened for HIV, 36 (57.1%) were positive, 25 (39.7%) were negative while in 2 (3.2%), and the results were inconclusive.

The patients were divided into three groups according to the cause. These were intestinal obstruction, inflammatory and traumatic conditions. A total of 132 (60.5%) of the patients had intestinal obstruction, 59 (27%) presented with inflammatory diseases while 27 had traumatic abdomen. Inguinal hernias accounted for 58% of the intestinal obstruction cases followed by inguinal hernias (20%) and adhesions (7%). Other causes included other abdominal hernias (6%), intussusceptions (4%), tumours (3%) and ascariasis (2%). The average time between admission and operation was 2 hours.

Of the 59 patients with acute abdomen due to inflammatory causes, 15 (25.4%) were due to acute appendicitis, 11 (18.6%) had primary peritonitis, and 8 (13.6%) due to bowel perforation. Other causes included 5 perforated peptic ulcers (8.5%), 4 acute cholecystitis (6.8%), 3 tuberculous (5.1%) and others. Four patients presented with paralytic ileus following traditional medication. Four patients had gynaecological pathology. The average time between admission and operation was 5 hours in the inflammatory group.

Seventeen patients presented with blunt trauma due to road traffic accidents (13), violence (2) and work (industrial) accidents (2). The spleen was the organ most commonly injured (8 cases), Five patients had small bowel injury, and 3 had liver damage while one had a retroperitoneal haematoma.

Ten patients had open abdominal injury. Eight were due to gunshot wounds while 2 were stab wounds. Four of the patients, sustained bowel injury 3 had omental and 2 had bladder trauma. The average time between admission and operation was 1 hour.

The wound infection rate was 1.4%. A total of eleven (5.0%) of all patients died during the post-operative period. Three of them were HIV positive. The mortality was lowest in the obstruction group (1.5%), three (11.1%) occurred in the traumatic group and 6 (10.2%) were in the inflammatory group. The mean hospital stay was 10 days.

The findings in our study were comparable with those reported from elsewhere. The key point in the management of acute abdomen is early diagnosis and treatment.

**Abstracts of papers presented at the meetings of the Surgical Society of Zambia (3rd April 1999, 2nd October 1999 and 25th March 2000).**

**False aneurysms associated with HIV infection.**

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Two patients presented with three false aneurysms associated with HIV infection.

The first was a 25-year-old Zambian male suffering from serologically confirmed AIDS who presented with false aneurysm of left femoral artery followed within an interval of three months by a similar aneurysm of the right femoral artery. The aneurysms were excised and the femoral arteries ligated at both ends.

The second patient was a 28-year-old male Zambian patient who presented with an infected

right carotid artery aneurysms that had fistulated into the internal jugular vein. The aneurysm was excised with ligation of the artery and vein. In both cases, the postoperative periods were uneventful. Histology in both cases showed severe granulomatous vasculitis.

AIDS patients presenting with aneurysms should not be precluded from surgery. However, reconstructive vascular surgery in such cases may have postoperative problems because of the nature of pathology the patients have. These patients are young without arterio-sclerosis and have collateral and cross circulation that is able to sustain adequate perfusion after division and ligation of major blood vessels.

### **Severe post burn neck contractures, surgical and anesthetic challenge in third world countries.**

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Severe anatomical distortion of the neck structures or presence of rigid scars in the area can make endotracheal intubations difficult if not impossible. This study of 27 patients was done to share some of the experiences gained over a period of 6 years with other surgeons, particularly those who were not trained as plastic surgeons in the treatment of such cases.

In an overview of 27 patients with severe neck contractures due to burns or keloids, we looked for the solutions to the anaesthetic and surgical difficulties met in treatment of these unfortunate patients.

The conclusion was that in our circumstances it is advisable to do immediate skin grafting to the patient with severe neck contractures (full and split thickness skin graft) rather than going for large local or distant flaps as primary procedure. Local flaps may be used as a secondary procedure when

necessary. Blood loss and anaesthetic time are reduced to a minimum thus avoiding blood transfusion in our hospitals where there is severe blood shortage and high risk of transmission of HIV infection through blood.

### **A spectrum of the most frequent diaphragmatic malformations at the Paediatric Surgical Centre, University Teaching Hospital, Lusaka, Zambia.**

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The diaphragmatic malformations range from incomplete eventration passing through diaphragmatic hernias, of diverse locations to diaphragmatic agenesis. The diaphragmatic eventration and the postero-lateral hernia also known as Bochdalek's hernia are the most frequent. Some of the malformations can produce severe respiratory distress from the time of birth. On the other hand others may produce only few symptoms and are discovered during routine clinical examination. Those variations in the clinical picture depend on whether there is pulmonary hypoplasia or not. In this paper we present three patients one of them with complete diaphragmatic eventration with slight pulmonary hypoplasia and the other two with complete diaphragmatic hernia of Bochdalek, one with severe respiratory distress from the time of birth and the other with respiratory distress that started one week after birth. All our patients survived, and were well at home.

### **Review of facial injuries as seen in the Maxillofacial unit in the University teaching Hospital (UTH) Lusaka, Zambia.**

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Facial bone fractures have distinguishing characteristics from other bone fractures. Being

relatively exposed and having minimal soft tissue protection, almost all severe facial trauma produce fractures. Apart from the mandibular ones, the degree of displacement of facial bone fractures depends on the force of the trauma.

A retrospective study of facial injuries seen in the Maxillofacial unit of the Surgical Department, UTH, from January 1993 to August 1999 was carried out. Etiological factors, types and frequency of injuries and the most vulnerable age groups were recorded. Data was collected from monthly morbidity and mortality audits, register books in the Maxillofacial clinic and patients' files. Comparison with findings from similar studies carried out in other African countries was done through internet.

A total of 809 cases were registered during this period. In the 503 cases seen between January 1993 and December 1996 the details of fracture type were not available. From January 1997 to August 1999, 306 cases were registered and classified and it is from these cases that our review is based on.

## **HERNIA REPAIR IN CHILDREN**

A Total of 218 patients with external abdominal hernias were seen in a period of 5 years (1995-1999). There were 164 males (75.2%) and 54 female (24.8%). The ages ranged from one week after birth to 15 years with mean age of 2.1 years. Fifty one (23.4%) of the patients presented with irreducible hernia for which they underwent emergency surgery. Reduction of the irreducible hernia under muscle relaxation (Taxis) was used in this Unit. The rest of the patients (76.6%) had reducible hernias that were treated on elective basis. The number of patients reviewed in this study did not represent the total number of children treated with external abdominal hernia at the University Teaching Hospital since most of the emergency cases were managed in the five general surgical units of the Department of

Surgery.

Herniotomy was the treatment of choice in this study except for one patient who had a big abdominal hernia due to congenital absence of abdominal muscles. In this case hernioplasty using tensile fascia lata from one of the legs was done at the age of 12 years.

The Commonest hernia in children was inguinal hernia. And like in other hernias, the identification of hernia sac was the most important requirement for proper performance of herniotomy.

One case of testicular tumor in a 2-year boy was the only difficult differential diagnosis, which had been misdiagnosed as irreducible hernia and had been subjected to operation. Hydrocoele was however the commonest differential diagnosis, which was in all cases easily identified and thus treated appropriately.

**Hernia repair in children needs patience, good eyesight and gentleness in handling of tissues.**

**Orbital cellulitis: Need for early and aggressive treatment.**

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Orbital cellulitis is a rare condition seldom seen in developed countries. It is frequently inappropriately managed because of lack of awareness of its unique anatomico-pathological features. The rich venous interconnections and paper-thin bones separating the orbit from the Para orbital air sinuses determine the progress of the disease.

This was a retrospective study of orbital cellulitis. Fourteen patients were managed in the University Teaching Hospital over a ten-year period. The

disease was commonest among the adolescents. Patients usually presented within one week of the start of symptoms, with unilateral orbital and sometimes facial swelling. Almost all the patients had incision and drainage as the first step. Their mean hospital stay was 27 days. In some units delays occurred before referral to an otolaryngologist for definitive surgery. Just over half (51%) of the patients had sinusitis. Complications included nerve palsy (1 patient), osteomyelitis (3), intracranial infection (3), and blindness (3). There was one death.

These results compare favourably with those from other series, which have reported figures of up to 50 to 55 per cent mortality and blindness. We attribute this improved outcome to maintenance of hydration, the use of high dosage of parenteral broad-spectrum antibiotics and prompt drainage. In addition to these measures, potentially life-threatening can be avoided by early referral to an otolaryngologist for surgery of the sinuses.

### **Ludwig's angina: A limited experience and review of literature.**

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In 1886, Wilhelm Frederick Von Ludwig described a fast spreading nearly always-fatal infection involving the connective tissues of the neck and floor of the mouth. The infection is located deep to the investing layer of the deep fascia and causes superoposterior displacement of the tongue with airway obstruction.

Seven patients who were admitted to the Department of Surgery, University Teaching Hospital during 1998 are described. They presented with dehydration, foetor oris, salivation, a partially open mouth and an elevated immobile tongue. Severe widespread cellulitis and brawny tense swelling of the submental and submandibular areas was characteristic in those

ill, pyrexial patients. There were four males and three females. Two patients were children. In five patients, the source of infection was a dental root abscess. In the remaining two, the cause was uncertain. Treatment consisted of incision and drainage, parenteral antibiotics and in one patient antibiotics alone. Tracheostomy was performed once. There were two deaths.

In conclusion, adequate hydration, high dose of the appropriate parenteral antibiotics effective against anaerobes and aerobes, incision preferably under local anaesthesia and careful attention to the airway are pre-requisites for the successful management of Ludwig's angina.

### **A study of rigid oesophagoscopies: A personal series of 92 endoscopies in 48 patients.**

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With the advent of the fiberoptic instruments, the role of rigid oesophagoscopy is diminishing. Nonetheless, there appears to be a role for this technique of endoscopy under certain conditions and circumstances. No recent reports are available on the subject in the local literature. This study was undertaken to obtain information about the place of rigid oesophagoscopy in a personal series. The work was carried out in the author's unit, Department of Surgery, University Teaching Hospital in Lusaka. All patients admitted to the unit were included in the study. The data was collected from Log Books covering a period of ten years up to the end of 1998. Of the various diagnostic and therapeutic endoscopic techniques that were used, rigid oesophagoscopies were selected from this data. The results are presented.

Ninety-two oesophagoscopies were performed on 48 patients. Thirty four (70.8%) were males and 14 (29.2%) were females. Their ages ranged from 2 years 3 months to 81 years with an average of 40 years. The examination was for diagnostic

purposes on 48 occasions and combined diagnostic/therapeutic in 59. Thirty-nine endoscopies were done for carcinoma and 37 for strictures. Nine were for foreign bodies and the rest were for various reasons. In 14 patients, 40 repeat endoscopies were done while the remaining 34 patients had one endoscopy each. Worth noting was the one patient who underwent 18 oesophagoscopies/bouginages over a period of two years for a benign caustic stricture. He finally recovered.

Difficulties encountered during rigid oesophagoscopy included broken bougies, failure of light source and malfunctioning suction machines. No morbidity resulted from these events. Morbidity directly related to rigid oesophagoscopy occurred in 4.3% and in hospital, advanced disease mortality was seen in 4 patients

– 4.3% of endoscopies. Over half the number of the patients who had endoscopy were allowed home the same day.

### **In conclusion:**

- Oesophageal pathology is commoner in males
- Caustic strictures occurred in the younger ages in contrast to carcinomatous obstruction.
- Passable malignant strictures can be palliated with repeated oesophagoscopies and bouginage.
- Frayed bougies should not be used.
- Reliable light source and suction machines are essential.
- Morbidity/mortality associated with rigid oesophagoscopy was less than 5%.