Inaugural Lecture Series 207

THE HUMAN ORGANS - DEAD OR ALIVE IN A SURGEON'S HAND

By

D. O. Akinola
Professor of Surgery

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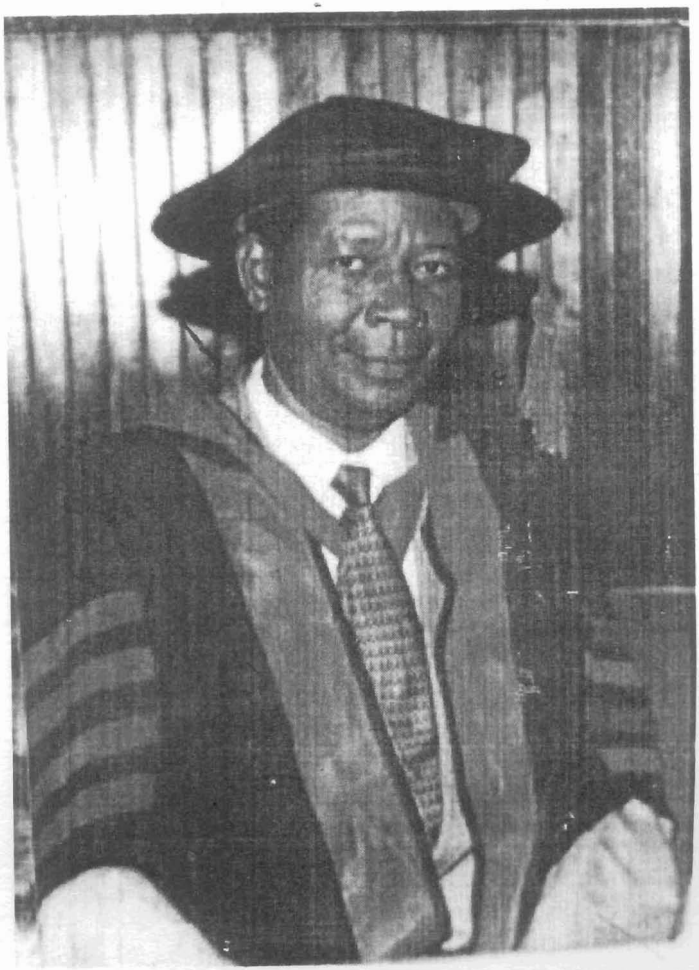

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An Inaugural Lecture Delivered at Oduduwa Hall, Obafemi Awolowo University, Ile-Ife, Nigeria

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Mr. Vice Chancellor Sir, I wish to give thanks to the Almighty God for the opportunity and privilege to give this inaugural lecture. It is a great honour to stand before everyone, everybody, eminent and distinguished persons, and I will like to make these preliminary remarks related to the title of this lecture.

In adulthood, the human organs are well formed and function optimally. Some of the organs though alive can become bigger and thus become dysfunctional. There are those organs that similarly are alive but are being eaten up by self secretions (auto-digestion) or from adjacent organs while quite a large number starts being diseased from childhood. What about those organs that have been genetically malformed from their origin but manifest only in adulthood? We examined the human organs that have been attacked by environmental agents e.g. virus, bacteria, sewage and pollution. There are organs that are dead or alive due to accidental catastrophies or invariably due to ageing.

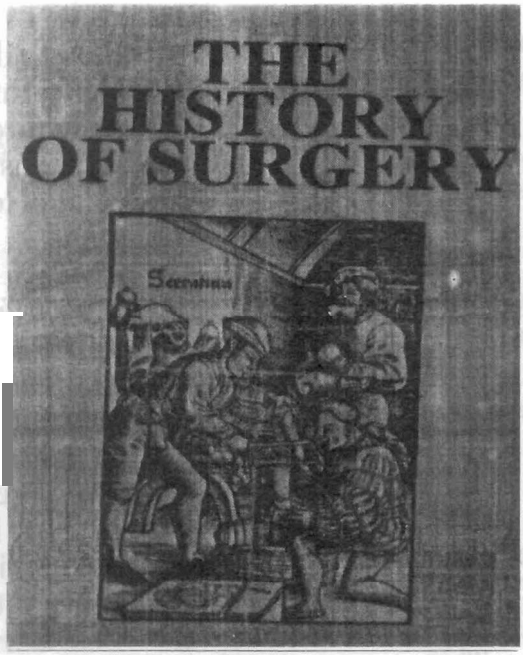
"It is not of him that willeth, the sub theme that needs to be considered as thus:

- It is not of him that willeth to be born.
- It is not of him that willeth to escape perinatal death.
- It is not of him that willeth to grow to adulthood.
- It is not of him that willeth to stay healthy as an adult.
- It is not of him that willeth to be able to pay and be treated in a hospital in Nigeria.
- It is not of him that willeth to have a successful surgery

It is not of him that willeth, nor of him that runneth.

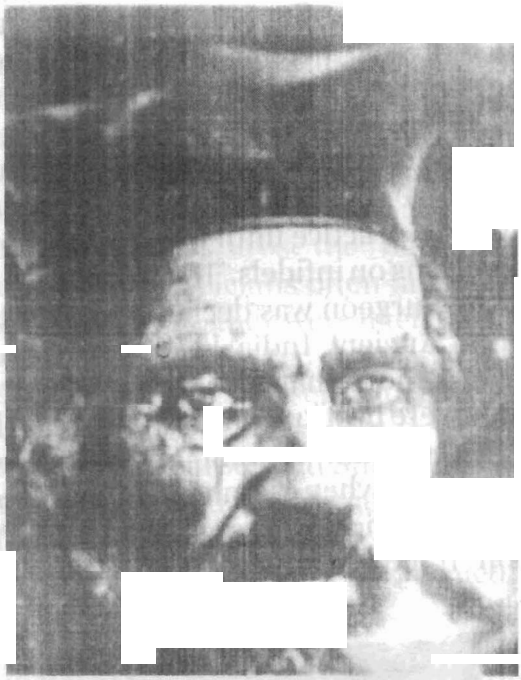
...BUT OF GOD THAT SHEWETH MERCY"

(Romans 9:16.)



The Barbers, Interventionist's

There are great contributions in the history of Surgery. A history of Surgery without Paré, Lister, Halsted, Patey, and Nostradamus would be a strange history indeed. Emphasis has always been placed on not too distant a time, however. It must be borne in mind that surgery's history is as old as that of humans on earth. They treated wounds, tried to stop haemorrhage, they trephined for injury to the head as well as for ritual reasons and voodoo. These "Surgeons" lack the knowledge of anatomy. Ancient Egypt provides examples of earliest known medical writings. The Edwin Smith papyrus which is of the greatest interest to Surgeons is one of the oldest, written about 1600BC. It consists of 48 cases, mostly wounds arranged in the order that later was to become the traditional one "*a capite ad calcem*".



NOSTRADAMUS

Thousands of years before Christ and even before the Smith and Ebers papyri era, in ancient Egypt, on a doorjamb of a tomb, was found evidence of surgery by an operator using crude instruments to perform circumcision. If the cuneiform is translated, the Surgeon is saying to the patient "I will do you good" which is constant reassurance and confidence of the Surgeon that continues to exist till this day.

Many people have attempted to do what Paré described as "quick motion of an intrepid hand joined with experience", so as to decrease the suffering of their fellow human beings. These people were given in the society various titles. At times priests, at times barbers, sometimes quack. I recount all these so that we can recognize the continuing evolution as we try to discover whether we are surgeons, or interventionists.

In the code of Hammurabi, the Babylonian law provided several penalties for the Surgeon whose operations were unsuccessful. If a free person died, as the result of an operation, the surgeon's right hand was to be cut off. It is of interest that the Babylonian laws provided that the Surgeon who caused harm to or death of a slave was bound only to repay the owner an equal value. In ancient Persia, surgeons were not allowed to practice until they had performed three successful operations on infidels. If
unsuccessful, the Surgeon was declared forever to be unfit to practice the art. Ancient India has a rich medical legacy. Susruta described more than 100 surgical instruments and Indian Surgeons were best known for their great skill in plastic Surgery. The Greek and Roman antiquity described the Surgeon as a specialist when *diet* and *drugs* were of no avail.
In the great Greek medical works ascribed to HIPPOCRATES were books on fractures, dislocations and other surgical disorders.

Much of his works were documented about 400BC- the patient, the operator, the assistants, the instruments, the lights and the body "The art of medicine" was promoted and practiced by Hippocrates the father of all medical art than by

his forerunners.

The Surgeons of the twelfth century greeted the rebirth of Surgery and believed that Surgery's decadence could be ascribed to two causes: It's division from medicine and the neglect of anatomy. Therefore a renewed interest in the study of Anatomy started. Along with these Surgeons of the long robe, who were often Clerics, arose the "Barbers" the even less learned Surgeons. The Physicians often favoured the barbers because being simpler men; they were likely to be willing to be at the beck and call of the learned doctors. The barbers and Surgeons of England belonged to separate guilds but in 1540 a compromise as to the rights and duties of each was reached and a single company of Barber and Surgeons was formed. By 1745 this was dissolved and the Surgeons Company existed independently. In 1843 by a Charter from Queen Victoria, the Royal College of Surgeons of England was formed.

Anaesthesia

In the early nineteenth century, Surgical Operations were still infrequent. There were numerous obstacles blocking the advance of Surgery. Pain, infection, haemorrhage and shock were four of the most difficult to overcome. As each was dealt with, the bonds of Surgery enlarged. The aim of surgical procedure had always been to alleviate human pain and suffering. The development of anaesthesia became one of the most important discoveries in the history of medicine. Alcohol, mandrake root, opium were known and administered in a crude manner. In 1846, William Morton successfully used ether and in 1847 Simpson introduced chloroform and a new age in Surgery was born.

The Surgeons of Our time

Who are Surgeons? Out of all definitions, I am able to describe as best and specific according to Ambroise Pare:

"Surgery is an art which teaches the way by reason how by the operation of the hand we may cure, prevent

and mitigate diseases which accidentally happen upon us."

The Surgeon must be ingenious: It is true that severe limitations have been placed on animal experimentation and researches through human autopsies; however Surgeons must be concerned that the patient should not be the first experimental ground upon which new technology is tested and therefore must explore other methods of instruction and practice. The ingenuity of the Hindu Surgeons needs to be recalled. A Hindu student surgeon began by practicing on plants, blood vessels of dead animals and leather bags filled with water to simulate hollow viscera.

The Surgeon must be able to adapt: Accomplished Surgeons trained in traditional techniques can, should, or will adapt to modern and new techniques. There will undoubtedly be further change in the methods of health care delivery and the Surgeon must be able to adapt.

The integration of new technology with other aspects of Surgery is important in the education of the Surgeon. In the course of the changing boundaries between traditional disciplines in international techniques one must say that: one of the challenges to be met is communication of knowledge, skills, approaches, and requirements for safe and efficient patient management.

As Surgeons of modern times therefore, we must not lose our identity. We must maintain our stand as the important group of individuals who follow Pares admonition. To take away that which is superfluous, to restore to their places such things as are displaced, to separate those things which are joined together, to join those which are separated, and to supply the defects of nature. This group of Surgeons have advanced the boundaries of surgery with the knowledge shared by those before us with the tools developed by many among us and with patient always central in our minds.

My Surgical Odyssey

Odyssey is derived from a Greek poem that is said to have been written by Homer, about the adventures of Odysseus. After a battle in Troy, Odysseus had to spend ten years travelling before he could return home.

I wish to lead you on a personal journey, one that begins with my training as a young Surgeon, continues through its metamorphosis and maturation and ends with some speculation on the future of Surgery. "What's past is prologue" and this short lecture also is a prologue to the future of surgery at Ile-Ife. I am reminded of a friend who in writing his autobiography wrote just a short passage. When he was asked why his autobiography was so short, he replied "That's all the longer I have lived so far". Similarly, this lecture is short but full of experiences and accomplishments as a salutary result of the efforts of many individuals and groups.

The Surgeon must be endowed with a **scientific mind** which includes the following:

Learn

↓

Listen and Think,

↓

Act and Create,

↓

Discover

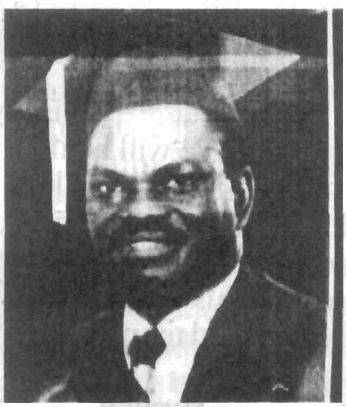
When I was informed that I will be delivering this Inaugural lecture today, I was initially thrilled. But soon after the flattery of the call to do this had worn off, I recalled that much exalted work had already been delivered by giants in the surgical community in this country. So what could be left for me to relate? I have learned many things from many surgeons

I started my career as a Surgeon in 1975. I had my special elective in Surgery at a small Surgical Clinic in a small town near PECS in Hungary under a Bulgarian Surgeon Mr. GOGEV, retired Professor KISS TIBOR of the Department of Surgery at Pecs University Teaching Hospital Hungary, Prof

Temple of Birmingham, Prof Johnson of Manchester and back in Nigeria, specifically at Ile-Ife in 1977 I trained under Prof. A. O. ARIGBABU, who is well known here in Ife.

Prof. A. O. ARIGBABU

He pioneered and sustained endoscopy instrumentation, trained the first generation and subsequent generations of surgeons and was the foundation head of Department of Surgery. Prof. W. O. Odesanmi gave support as I emerge as a surgical researcher. Prof M. A. Bankole nurtured me to maturity and academic.



Prof M. A. Bankole

While I do not have the verbal fortitude or flare for words nor do I think you would allow me the same latitude being given to

eminent men

As Lord Bulwer-Lytton so aptly wrote:-

When the high heart we magnify
And sure vision celebrate
And worship greatness passing by
We are also great
"It is not of him that willeth ..."

Contribution to Knowledge

The main thrust of my research is in gastrointestinal diseases (gastroenterology) in general surgical practice. These include upper gastrointestinal diseases evaluation and management. Lower gastrointestinal ailments are now becoming more common in the tropics contrary to the general assumption of low incidence amongst blacks. The aetiology presentation and treatment modalities seem to be of a complex nature in our community.

I have therefore in my research examined these subjects in an African setting: -

1. Upper Gastrointestinal Diseases (UGID)
2. Lower Gastrointestinal Tract Diseases (LGID)
3. Cancer Management
4. Acute Abdomen
5. Other clinicosurgical problems

They were studied in relation to

1. Aetiological Considerations
2. Clinical Investigation
3. Therapeutic modalities
4. Clinical Pathology
5. Investigative Gastroenterology
6. Minimal Invasive Therapy Management
7. Randomized trials and outcome.

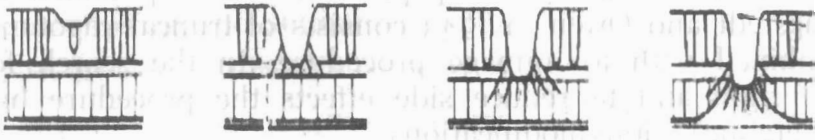
Highly Selective Vagotomy (HSV)

Patients suffering from upper gastrointestinal tract diseases most especially from dyspeptic symptoms represent a considerable proportion of our patients in the surgical out patient clinic and in surgical practice. Many of these patients had been treated for peptic ulcer disease based on history alone. Oesophagitis, gastritis, gastric ulcer, duodenitis and duodenal ulcers were the common findings in these subjects. At the beginning of the 1970's new approval in the surgical treatment of chronic duodenal ulcer was introduced. Treatment of duodenal ulcer by ***highly selective vagotomy*** became popular. Since, then there have been controversies in many surgical centres as to its success and justification, acceptance or rejections. Highly Selective Vagotomy is a procedure by which the vagus nerve, that controls the stimulation of the gastric juice in the stomach are divided along the stomach body selectively to enhance the healing of the duodenal ulcer. For the objective evaluation the following considerations are relevant.

1. The indications for HSV.
2. The variation of the vagus nerve
3. The classification of ulcer according to depth of ulceration
4. The skill of the surgeon

We embarked on the classical surgical treatment of Peptic ulcer disease by HSV [Arigbabu, Omole and Akinola; 1986].One hundred and two (102) patients were investigated and treated.

The Classification of ulcer



Classification of ulcer according to depth of ulceration

UI-I	Ulcer Stage I	Mucosa Level
UI-II	Ulcer Stage II	Submucosa level
UI-I	Ulcer Stage III	Penerating into the stomach muscle
UI-IV	Ulcer Stage IV	Perforating through the stomach wall

In selecting our patients we also included endoscopy and histological findings in the criteria for HSV preoperatively. Based on Murakami's (1976) classification of ulcers 37(36.3%) patients had ulcer II and 65 (65.7%) had ulcer III preoperatively at endoscopy in our series. Post operative complications were negligible, and all patients were followed from 4 weeks to 4 months.

Table 1: Results of endoscopic examination in 102 patients 8 and 12 weeks after highly selective vagotomy

		Not healed	
	Healed	**Improved**	**No change**
At 8 weeks	98 (96.%)	4 (3.9%)	0
At 12 weeks	102 (100%)	0	0

We found in our series that the ulcer had healed endoscopically in 98 patients (96.08%) after 8 weeks. The reduction of acidity and maintenance of the "mill functions" were established. We discovered that HSV gives very good results with ulcers II and III.

Only 4 patients (3.9%) had early complaints of epigastric

fullness and restrosternal pain. The physiological foundation for surgical treatment of peptic ulcer as expounded by Dragstedt and Owen in 1943 consists of truncal vagotomy combined with a drainage procedure. In the search for perfection and to reduce side effects the procedure had undergone various modifications.

Table 2: Good clinical results (Visick grades 1 & 2) in 80 patients 5 years after highly selective vagotomy

Visick grading	No of Patients	%	
1: perfect	74	72.5	97.9
2: very good	26	25.4	

The visick grading in 100 patients that were followed up to 5 years revealed 72.5% in perfect state while 25.4% were in good state. In Nigeria those cases that were seen rather late with advanced deformities involving the pylorus and duodenum attracted Holles approach (1969) of HSV combined with dilation (drainage procedure). In recent times, treatment of non-complicated peptic ulcer disease medically by exterminating the Helico-bacter pylori has gained ground nonetheless. This relatively safe procedure of HSV with optimal results should be employed in the treatment of selected cases.

Gastroesophageal Reflux Diseases

Many patients with gastroesophageal reflux disease cannot be successfully managed with medical treatment alone. The multiplicity of different anti-reflux procedures indicates that the ideal operation for this condition has not been established. In the quest for a breakthrough a prospective randomized trial of Nissen fundoplication and Angelchick prosthesis in the surgical treatment of medically refractory gastroesophageal reflux disease was embarked upon at the Queen Elizabeth Teaching Hospital Birmingham in 1990 by W.A. Kmiot, R Kirby, **D. Akinola** and J.G. Temple 1991.

The symptoms before operation included heartburn; acid

regurgitation and dysphagia Medical therapy given included antacids, H_2 blockers and omeprazole. Differences between the two groups were not statistically significant.

Table 3: Patient symptoms before operation and type of medical therapy in the two groups*

	Nissen (n = 25)	Angelchik (n = 25)
Symptom		
Heartburn	22	23
Acid regurgitation	20	21
Dysphagia (stricture)	1	2
Medical therapy		
Antacids	25	25
H2 blockers	25	25
Omeprazole	12	10

* Differences between the two groups were not statistically significant

Endoscopic oesophageal appearance showed inflammation and ulceration in 25 patients each. Barium studies revealed free reflux from the stomach into the oesophagus in the same number of patients. Oesophageal pressure studies and the percentage of time at pH below 4 equally did not show statistical difference. All the patients for Nissen and Angelchick prosthesis procedures were pressure tested by the same surgeon to avoid and eliminate different human errors.

Table 4. Endoscopic oesophageal appearance, barium swallow, oesophageal manometric pressure and 24-h pH data in the two groups*

	Nissen (n = 25)	Angelchik (n = 25)
Endoscopy		
Inflammation	25	25
Ulceration	14	15
Barium studies		
Free reflux	25	25
Oesophageal manometry		
Lower oesophageal Sphincter pressure (mmHg)**	12 (5 – 25)	15 (5 – 30)
24-h pH studies		
Percentage of time at pH < 4**	15·6(3.2 – 47.6)	12.7(3.8 – 51.4)

* Differences between the two groups were not statistically significant
** Values are median (range)

All the operative procedures were done by the same and only one Surgeon who is proficient and experienced in antireflux operations. The patients tolerated the procedures very well and

post operative periods were uneventful. Functional outcome (Visick grade) in the two groups from 3 months to 2 years after operation were observed, Results show that more patients had Good (Visick 1 & 2) result with Nissen than with Angelchick. Similarly, fewer patients had Poor (Visick 3 & 4) result with Nissen than with Angelchick. We noticed that differences between the two operative procedures were not significant.

Table 5. Functional outcome (Visick) in the two groups from 3 months to 2 years after operation. Results are expressed as patient outcome/patients available for study, at the various time intervals*

Time after operation (months)	Good result (Visick 1 and 2)		Poor result (Visick 3 and 4)	
	Nissen	Angelchik	Nissen	Angelchik
3	22/25	18/25	3/25	7/25
6	19/22	16/23	3/22	7/23
12	17/20	14/20	3/20	6/20
24	7/8	6/10	1/8	4/10

*Differences between the two operative procedures were not significant

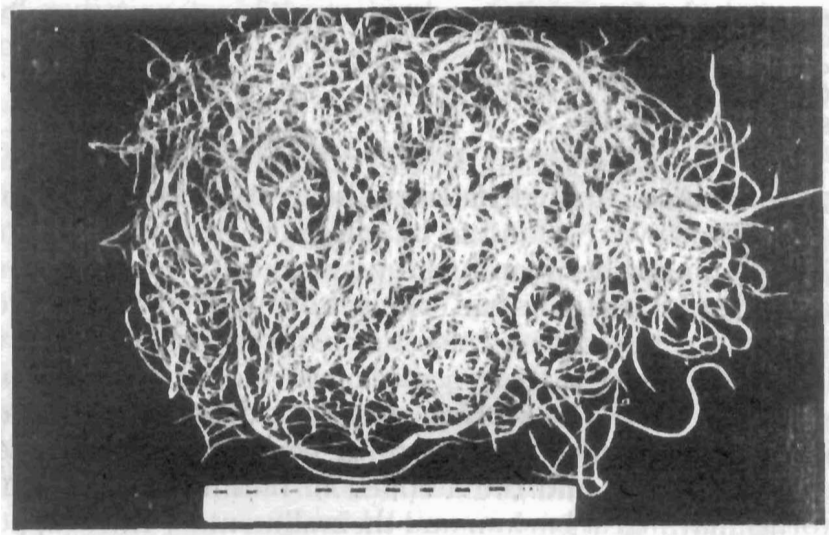
The study adds to the growing evidence that despite its ease of insertion, the high incidence of complication with the Angelchick prosthesis means it cannot be recommended for routine use in anti-reflux surgery. There is no need for further randomization as it will be unethical and it is recommended that the use of Angelchick be abandoned.

Intestinal Ascariasis

Intestinal infection mainly by Ascariasis (roundworm infection and disease) is still a common infestation in the third world today. It has been estimated that about 21% of the population in Sub-Saharan Africa are infected with Ascaris. The lifecycle of ascaris worm starts by swallowing the infective eggs by man. The larvae migrate through the portal vessels to the lungs and re-enter the alimentary canal where they mature, mate and the fertilized female's lay about 250,000 eggs daily for up to one year. Some of the eggs are discarded in the faeces for another life cycle.

E. A. Agbakwuru and **D. O. Akinola** et al, 1998 reported a 12 year old Nigerian girl who presented at the emergency room with colicky central abdominal pain associated with vomiting

(6–7 worms each time) without history of passage of worms per rectum. The abdomen was grossly and generally distended with little or no movement. The plain abdominal X-Ray showed multiple air fluid levels with some mottled air shadows in the small gut highly suggestive of ascaris load. After resuscitation and at laparatomy, various sizes of entangled ascaris worms were encountered, alive and mobile. Enterostomy and extraction of about 2,050 worms was performed. The shortest, measured 5cm and the longest, 15cm. The post operative period was uneventful.



Ascaris Worms Causing Intestinal Obstruction

This patient survived. Experiences have shown that the higher the load the greater the risk of morbidity and mortality. There is a need for the prevention through the increase of health education programmes in farm settlements, villages, and school systems for easy and large population coverage to reduce the prevalence and morbidity of this disease entity.

In a related effort, (Hamed A., **D, Akinola** Tropical 1990), the presence of mature ascaris worms in human intestines has been associated with many pathological conditions including peptic ulcer. It behoves one to state the importance of

intestinal ascariasis in the differential diagnosis of peptic ulcer disease especially in the tropics and to suggest a less expensive first line method of treatment in the management of non-complicated peptic ulcer disease.

Over a 5 year period in a busy radiology department for barium meals screening a total of 865 patients were screened;

Table 6. Findings of barium meal on 865 patients with signs and symptoms of peptic ulcer disease

Findings	**Number**	**%**
Normal	449	51.9
duodenal ulcer alone	**187**	21.7
ascariasis alone	**175**	20.2
ascariasis		
duodenal ulcer + (Ascaris)	**43**	5.0
gastro-oesophageal reflux	9	1.0
gastric ulcer	2	0.2

175 patients who though had no radiological evidence of peptic ulcer disease were found to be infested with ascaris worms. The age ranged between 8 and 74 years with a male female ratio of 2:1. 187 patients had evidence of duodenal ulcer as well. 43 other patients had coexistence of ascaris worms with duodenal ulcer. 9 had gastroesophageal reflux and only 2 cases of gastric ulcer. The worms present as tubular radiolucent filling defects within barium filled bowel. The worms were long, cylindrical and often coiled in outline. These ascaris worms may ingest barium and their alimentary tracts appear as white thin columns bisecting their radiolucent bodies.

The presence of Ascaris worms along the gastrointestinal tract in 218 patients shows that jejunum was the most vulnerable with 105, ileum 59, duodenum 23 and 31 patients were infested at multiple sites.

Table 7. Site of ascaris worms in 218 patients

Site	**Number**	**%**
Jejunum	105	48.2
Ileum	59	27.1
Duodenum	23	10.5
multiple sites	31	14.2
TOTAL	**218**	**100**

The 43 patients in whom ascaris coexisted with peptic-ulcer disease had considerate relief on taking anti-helmintic drugs of Pyrantel pamoate (combantrin) but became symptom free after receiving antipeptic ulcer treatment. This suggests that the ascaris worms must have been responsible for the presentation of peptic ulcer like signs and symptoms of peptic ulcer disease. In 1977, Ajao and Solanke showed that 22% of routine examinations contain ova of ascaris. It is therefore recommended that these patients have plain abdominal radiograph taken only thereby reducing unnecessary heavy load radiation to patients in the radiological investigative procedures.

LOWER GASTROINTESTINAL DISEASES

Lower gastrointestinal diseases pose peculiar problems in the tropics. Unbridled enthusiasm had little to wane as the emergence of proof and digging deep into the ailments of lower gastrointestinal tract did little to "sink the ship". I became a colorectal disease investigator; an enthusiast than anyone expected. Unfortunately it took a "wake up call" from the fourth estate to remind me that the central responsibility is: "It is not of him that willeth ..." in respect of these patients, the community, their safety, their healing, and their well being *primum non nocere* (first to do no harm) in my quest. I therefore take liberty of presenting to you what appeared in my crystal ball, *albeit* not in a fuzzy way, the "peep show" of surgical intervention of colorectal surgery.

FISTULA IN ANO

First on my shopping list is the study of *fistula in ano* in Nigerians over a five year period. What is *Fistula in ano?* This is a tract between the anus, rectum and the outside skin due to infection. Studies carried out within the period shows that 77 patient seen for *fistula in ano* at OAUTHC were investigated and treated. (**D, O, Akinola**, A. O. Hamed, 1989). Observations show that there were quite significant proportions of patients that presented with pallor rectal pain,

perianal itching and laxed sphincteric tone.

Table 8 Major Clinical Presentations

	Male	Female	Total (%)
Discharge from fistula	59	18	**77 (100)**
Pain	49	9	**58 (75.3)**
Pallor	49	13	**62 (80.5)**
Itching/perianal	47	6	**53 (68.8)**
Bleeding P/R	14	4	**18 (23.4)**
Lax sphincteric tone	6	2	**8 (10.4)**

Multiple infections and heavy bacterial growth of staphylococcus aureus and Escherichia-Coli were found and implicated. There were 59 (76.6%) males and 18(23.4%) females with an approximate 3:1 ratio. The mean age was 41.32yrs

The location of the fistula with regards to the external opening showed that 14 cases presented with anterior fistula, while 49 patients had a posterior external opening. Left lateral external opening was found in 8 and right lateral in 6 patients respectively.

Table 9: Location of Fistula

	Male	Female	Total(%)
Anterior	11	3	14 (18.2)
Posterior	40	9	49 (63.6)
Left lateral	5	3	8 (10.4)
Right lateral	3	3	6 (7.8)
Total	**59**	**18**	**77 (100)**

Intra operative injection of methylene blue to outline the fistulous tracts and proctoscopy were carried out. Fistulograms (X-ray imaging) were done in 69 cases. Operative procedures which include Layopen, 33(42.86%). Direct fistula tract dissections for 17 patients 22.08% were done. A combination of fistulous tract dissection with lay open and drainage were performed for 18 cases. Average hospital

stay was (6) six days. Thus we were able to classify the fistulas into low and high. There were 37 males and 11 females treated for low fistula while 22 males and 7 females for high fistulas respectively. 18 patients had associated haemorrhoid. There were no complications such as incontinence, reoccurrence and impairment of anal function in our series.

Table 10: FISTULA IN ANO IN NIGERIANS

Table III Classification of Fistulas

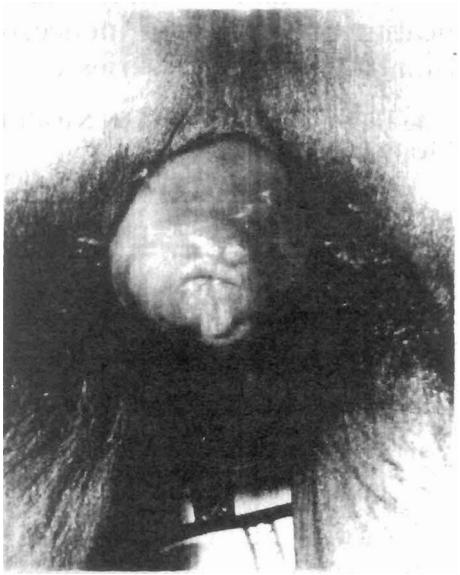
Type	Male	Female	Total (%)
Low:			
Superficial	1	2	(7.8)
Intersphincteric below puborectalis	33	9	42 (54.6)
Total	37	11	48 (62.3)
High:			
Intersphincteric above puborectalis	8	2	10 (13.0)
Transphincteric	6	2	8 (10.4)
Superasphincteric	5	2	7 (9.1)
Extrasphincteric	3	1	4 (5.2)
Total	22	7	29 (37.7)
Grand Total	59	18	77 (100)

In our study, 51(66.24%) of cases presented after 48 months. These patients would have had trials with traditional and spiritual healers. There is no conclusive proof that the African male is more endowed with more anal glands which are more prone to infection than the female counterpart. Follow up of 6 months to five years was possible in about 50% as the remaining patients were lost to follow up. Continuous health education and improved perineal health care will reduce the statistical incidence in our community.

RECTAL PROLAPSE

Further evaluation of patients with lower gastrointestinal problem made us to study a more complex disease entity - Rectal prolapse. Complete Rectal prolapse is uncommon. There is relative infrequency of this disease in young adult and had been noted since medieval times **Akinola D. O**. and Agbakwuru E. A.(1991) examined the cases of rectal prolapse at OAUTHC Ile-Ife. There were 129,525 hospital admissions (for surgical ailments) over a five- year period. Twenty nine

cases were found, reviewed and managed by two consultants to establish the best option and method of treatment in our centre.



In an era where evidence based medicine is supposed to guide surgical practice, one would predict that only the operations proven to be beneficial in an underdeveloped society would be more widely practiced. This observation begs the rhetorical question: - Why have these procedures not thrived?, The answer is simple. Most procedures though may have become popular but have not brought the desired benefit and outcome to the patients.

The predicament is the rationing of surgical care by socio-economic condition and environment. So it is with rectal prolapse as it refuses to heal unless surgical intervention is applied. Rectal prolapse in adulthood though uncommon, is a well known disease entity and data has accumulated in the developed countries. The present incidence in our series of adult patients supported the uncommon nature even in Nigerian adults. Evaluation of our patient showed female preponderance ratio 2: 1.

Table 11: Male – female incidence

	Male	Female	Total	Male : Female ratio
No. of patients	10	19	29	1 : 2
Percentage	34.5%	65.5%	100%	

Table 12: Age

	Male (Yrs)	Female (Yrs)	Total mean age
Age Range	22-70	24-80	52 years
Mean age	53	51	

Report of faecal incontinence complicating rectal prolapse was reported in 75% by Boulous *et al*; (1984) while 15 (51.7%) patients were found in our series. Soiling due to persistent mucus discharge has become a phenomenon associated with discomfort and social embarrassment. These patients also suffer from constipation, diarrhoea, and rectal bleeding. Two of our patients had their prolapse for 16 years before presentation Imagine!!!

Table 13: Clinical features

Symptoms	Male	Female	Total	%
Complete prolapse	10	19	29	100.0
Constipation	7	13	20	69.0
Diarrhoea	3	6	9	31.0
Incontinence	4	11	15	51.7
Soiling	9	17	26	89.6
Perianal itching	8	16	24	82.8
Rectal bleeding	3	2	5	17.2
Uterine prolapse	1	1	1	3.4
Pallor	7	16	23	79.3

A patient was managed by manual reduction because it was partial prolapse, Thiersch procedure, Repstein method and Simple technique procedures were employed.

Table 14: (Management)

Types of procedure	Male	Female	Total	%
Manual reduction	1	-	1	3.0
Thiersch procedure	1	1	2	6.1
Lahauts procedure	-	1	1	3.0
Wells procedure	-	1	1	3.0
Moores procedure	-	1	1	3.0
Ripstein procedure	1	-	1	3.0
Others	-	1	1	3.0
Simple technique	7	15	22	75.9
Total	**10**	**19**	**29**	**100%**

We surgically managed 22 (75.85%) patients using Simple Posterior Fixation Technique. It is mandatory to perform fixation of both Rectum and Sigmoid colon to avoid the Sigmoid colon twisting into volvulus. Advocacy is being made as we preach the practice of this technique called RECTOPEXY for acceptance in our developing setting to enhance the desired results. There was no mortality and recurrence and follow up was from 6 months to 4 years in about 50% of our cases.

COLORECTAL CANCER

It is generally believed that colonic neoplasms are uncommon amongst blacks.

We embarked on a study of the presentation and pattern of colorectal cancer amongst Nigerians and to highlight and share our experience over a ten-year period.127 colonic neoplasm's were investigated and treated. The various presenting symptoms, investigative procedure palliative and definitive surgical interventions were studied including the core of disease progress.

Table 15: Sex Distribution

	Male	Female	Total No	Male – Female Ratio
No of Patients	84	43	127	approx 2:1
Pc	66	34	100	

The age range was 30-75 (mean 53) years and the male-female ratio of 2:1. Time lag period (i.e. onset of illness to presentation) was between two weeks to three years

Table 16: Mean age at diagnosis

	Male	Female	Total mean age
Age range	30 – 73 yrs	16 – 60 yrs	53 yrs
Mean age	53 yrs	5 yrs	

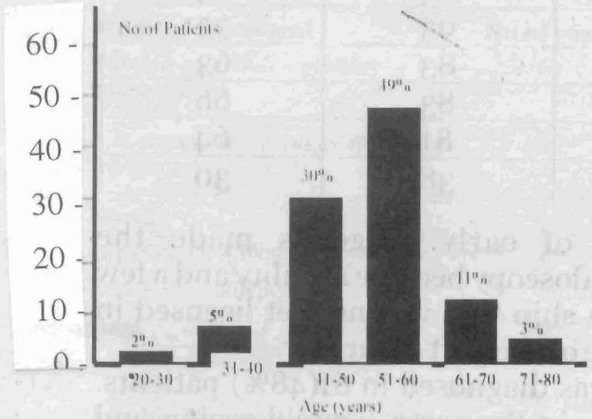


Figure 1. Symptomatic age distribution reveals the disease was most prevalent in the fifth decade

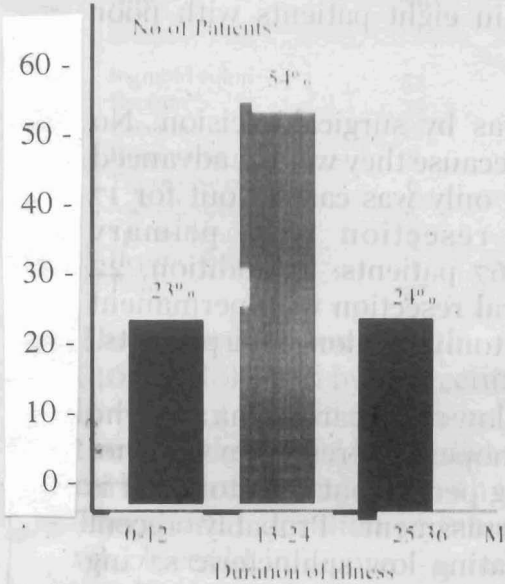


Figure 2. Timelag of onset of illness and presentation at the hospital was between 13-24 months in majority of cases

Major clinical presentation showed that change in bowel habit was the most common feature while weight loss was found in 95 cases. Intestinal obstruction and anaemia were seen in 83 patients, rectal bleeding occurred in only 38 cases in this series.

Table 17: Major clinical presentation

Clinical features	No of patients	%
Change in bowel habit	107	84
Weight loss	95	75
Intestinal obstruction	83	63
Anaemia	83	66
Palpable mass	81	64
Rectal bleeding	38	30

The pioneering effort of early surgeons made the therapeutics of flexible endoscopy become a reality and a few surgeons dare to board a ship that was not yet licensed in either the port of medicine or the port of surgery.
Endoscopically, cancer was diagnosed in 61(48%) patients. Nine patients had polyps in the recto-sigmoid region and investigation was abandoned in eight patients with poor bowel preparation.

The mainstay of treatment was by surgical excision. No surgery was done for 19 cases because they were at advanced stage. Laparatomy and biopsy only was carried out for 17 cases. Fortunately tumor resection with primary anastomosis was possible in 67 patients. In addition, 22 patients had Abdomino perineal resection with permanent colostomy. Endoscopic polypectomy was done for 2 patients.

Those patients presenting with low rectal carcinoma and who would benefit from an abdominoperineal resection were not easily convinced into accepting permanent colostomy. It is regarded as a social embarrassment. Probably recent advances by Goligher propagating low sphincteric saving resection with coloanal anastomosis using stapling gun may ameliorate the management of low rectal cancer in these patients.

Table 18 and 19 shows the surgical treatment and the location of lesion,

Table 18: Surgical treatment

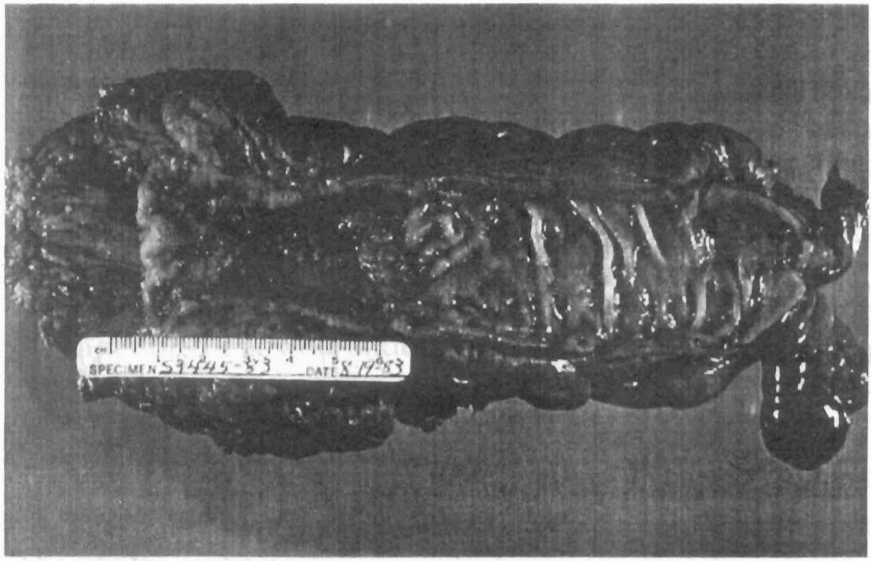
Mode of treatment	No of cases	%
Tumour resection + primary anastomosis	67	53
A.P. resection + permanent colostromy	22	17
No surgery	19	15
Laparatomy + biopsy only	17	13
Endoscopic polypectomy	2	2
Total	127	100

Table 19: Location of lesions

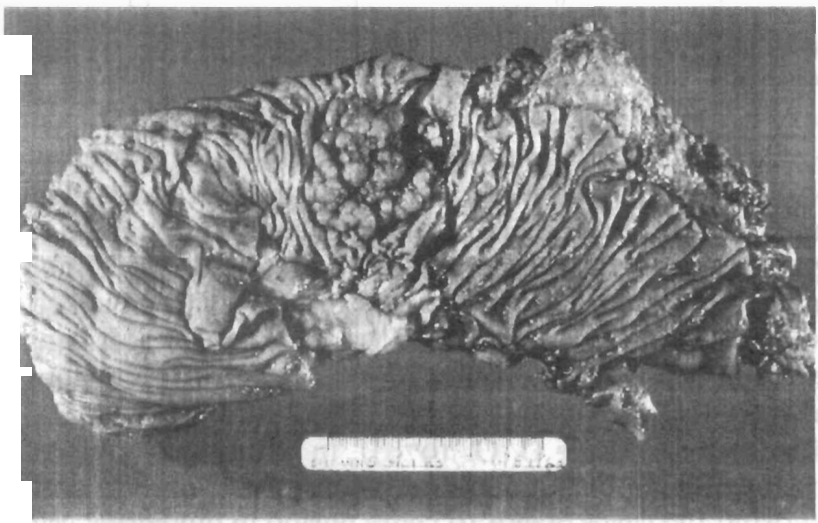
Site	No	%	International pe Copeland *et al*
Sigmoid colon	52	40.9	30.8
Rectum	35	27.6	39.8
Caecum	12	9.5	6.2
Descending colon	8	6.3	6.9
Transverse colon	6	4.7	5.4
Ascending colon	5	3.9	5.3
Spenix flexure	5	3.9	3.6
Hepatic flexure	4	3.2	3.0
Total	127	100.0	100.0

The sigmoid colon was the most vulnerable with 52 cases (40.9%) followed by the rectum with 35 patients (27.6%) The low rate of colonic neoplasm in Africans could be ascribed to the hypothesis of African diet with high fibre and low refined carbohydrate compared with the Western diet with low fibre. The shorter duration of intestinal transit time, in Africans which could influence the reduced exposure to carcinogens maybe true after all as revealed by the detail study of Lewis and Kale (Lewis E. A., Kale O. O. 1978)), in which over 90% of Nigeria have soft bulky regular motion of at least once in a day. We reported 127 cases over a 10 years period in our series. We found that low level of health consciousness, inadequate diagnostic and screening facility and the absences of national

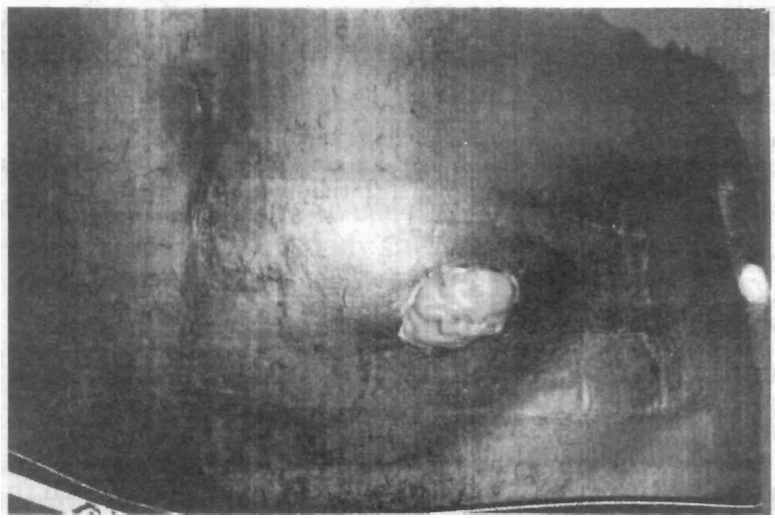
data and cancer registry have contributed to the "low rate" in question.



Edward Klatt et-al: 2005
Resected Large Bowel with Carcinoma (Rectum)



Edward Klatt et-al: 2005
Resected Large Bowel with Carcinoma (Sigmoid Colon)



Akinola et al 1994

This Picture Shows The Permanent Colostomy In A Patient With AP Resection.

In another report on this subject of colonic cancer, our curiosity on epidemiology and surgical pathology was rekindled and research in this direction is still inexhaustible. Why not revisit some of the classic precepts of oncologic colon surgery of minimal tumour manipulation, and examination of all surgical specimens with a view to arriving at the conclusion of the previously suggested differences in the biology of colorectal carcinomas in the tropics. There are differences in the epidemiology as well as oncogenic influences, underlying their development in the tropics. We therefore embarked on a detail scrutiny of the histological subtype, the depth of invasion of the wall of the bowel and classified according to the modified Dukes classification. The total numbers of microscopically positive lymph nodes were noted. Also, cognisance was taken of the unclear grade of each tumour and the presence and pattern of extra intestinal metastasis in both local and distant sites. The presence or absence of incidental

mucosal lesions both grossly and microscopically were carefully sought. During the period 102 surgical specimens of colorectal malignancies were recorded. The histological variants are shown in Table 20.

Table 20: The Histological Variants

Age	Well differentiated Adenocarcinoma		Mucinous Adenocarcinoma		Signet Ring Carcinoma		Undifferentiated Adenocarcinoma		Total
	M	F	M	F	M	F	M	F	
0 - 20							2		2
21 - 50	27	7	1	3	1	2	6	5	52
50	19	7	1	1					28
TOTAL	60		6		3		13		82
	73.2		7.3		3.7		15.9		

Well differentiated adenocarcinoma was seen in 73.2% of cases. It was the most common histological variant seen in all the age groups. This was followed by undifferentiated carcinoma, 15.9% of the cases. All cases of undifferentiated carcinoma occurred below the age of 50 years. The well differentiated adenocarcinoma was the only histological variant seen above the age of 60 years.

Table 21: Associated Mucosal Lesions in Colorectal Carcinoma

Lesion	No of Cases	%
Schistosomiasis	3	3.7
Amoebic colitis	5	6.1
Tubular adenoma	14	17.1
Villous Adenoma	20	24.4
None	40	48.8

Table 21 shows the various types of mucosal lesions encountered in surgical specimens with colorectal carcinoma. Villous adenoma was the commonest and was seen in 24.4% of cases. Most of these patients were 50 years and above in age. Tubular adenoma was seen in 17.1%, amoebic colitis was 6.1%, and schistosomiasis in 3.7%. However, most cases showed no associated mucosal abnormalities. The major presenting symptoms of colorectal carcinomas in Nigerians have been discussed in earlier report. Adekunle *et al* 1980 found that abdominal mass was the common mode of presentation in Ibadan, while Grillo *et al*, 1972 found abdominal pain and

intestinal obstruction to be the more common. Both studies agree with our study on the score that abdominal mass and large bowel obstruction are more commonly seen in Africans than Caucasians and black Americans. There is a striking difference in the site distribution along the large bowel. Most Caucasian authors indicate that the distribution of colon carcinoma is equal in the caecum, ascending, transverse and descending colon, our study showed that the descending colon has a relatively high incidence (23.2%). The coincidence in the distribution of amoebic lesion and that of colorectal carcinomas is rather striking.

The amoeboma, a chronic granulomatous sequela of amoebic colitis is found most often in the caecum and was seen in the caecum in five of our cases. Our observations lend substantial credence to the hypothesis suggesting an association between these chronic granulomatous disease and colorectal carcinomas. It is equally plausible that the biology of colorectal carcinoma in Nigerians is entirely different from those of Caucasians in having an early onset, different pathogenetic mechanism and behaving more aggressively. Further studies are required to confirm this hypothesis.

OTHER CLINICO-SURGICAL PROBLEMS

Heart Injury

Underfoot accident are those sustained due to slipping, tripping and falling and are responsible for many deaths the world over. However statistics of these accident are often lacking and when available are incomplete. It is very unusual for such accidents to lead to direct injuries to the heart. Therefore sudden accidental death with a short admission called for a review.

A 35 years old grounds man in a farm settlement in apparent good state of health was mowing grass one morning when some squirrels ran out of an encircled portion of the field. He joined his colleagues in giving chase but he fell heavily on his

face. He had apparently slipped and hit his chest against the projecting tip of a truncated shrub. He was brought to the casualty department gasping. He died as resuscitative measures were being administered. A post-mortem examination revealed external abrasions and a transverse ragged puncture wound in the left anterior chest wall in the fourth intercostal space just medial to the axillary line. The wound was just a mere slit about 1.5cm lowest diameter. The pericardium was filled with blood and there was a punctured laceration in the anterior surface of the left ventricle situated transversely in the mid portion and measured just about 1cm in diameter. The heart weighed 560gm. It was enlarged due to hypertrophy of the left ventricle which was 20mm thick. The right ventricle was 5mm thick and all the heart valves and the other chambers of the heart were normal.

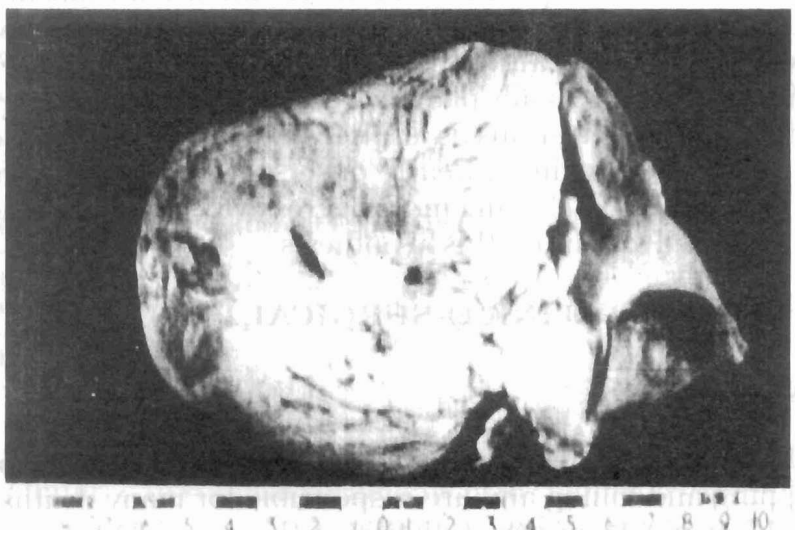


Figure: A transverse slit about 1.5cm deep punctured laceration in the left ventricle

i. This pointer indicates entry Point of Object causing Injury

Penetrating injuries of the heart are usually due to stabbing with sharp pointed instruments and gunshots. This patients'

big bulk and his unguarded fall provided the overwhelming thrust which drove the shrub into his heart. Unfortunately the rib did not offer the needed resistance that could probably prevented the fatal injury to the heart. The strain on the heart would also have been aggravated by the acute exercise of chasing the squirrels. It is very common that some cases of severe hypertension are detected during medical tests. Therefore this case further highlights the fact that employers of manual labour should conduct routine medical test on their employees. This report and findings serve as information especially to the resuscitating team in the emergency room to be extraordinarily meticulous and watchful. Thus the saying goes "***Act in haste - Repent at leisure***"

THYROID SURGERY-GOITRE

Goitre is a swelling of the thyroid gland located on the anterior aspect of the neck. The word goiter is a French word which comes from the latin *guttur* meaning throat.

In the course of my career, I actively treated a number of patients at O.A.U.T.H.C. Ile-Ife. This includes 286 benign cases comprising of toxic and non-toxic goiters (97.0%), and 9 cases of malignant goiters (3.1%). There were 11 (3.7%) males and 284 (96.3%) females. 258 (87.56%) cases underwent surgery. Only two (2) mortalities were recorded. The report aims to highlight the fact that this disease is common in our environment due mainly to iodine deficiency and other goitrogens.

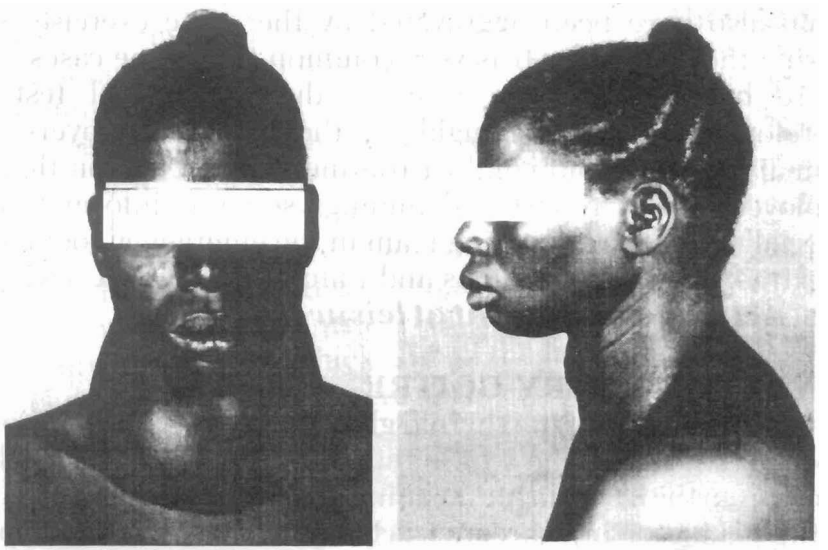
Indications for surgery include:

(a) Embarrassment of the swelling to the patients as they were mostly females who were being tagged "witches" by the unenlightened society.
A patient came for surgery because at the ceremony of the grand-daughter, she was called a witch and the guests refused to take their refreshments.

(B) Cosmetic Surgery

(c) Pressure effect on the adjacent structures such as the trachea and the oesophagus.

There is need to continue on the research of thyroid enlargement with regards to our local diet some of which are said to contain goitrogens.



Giant Goitre Patient: before Surgery and After.

Breast Diseases

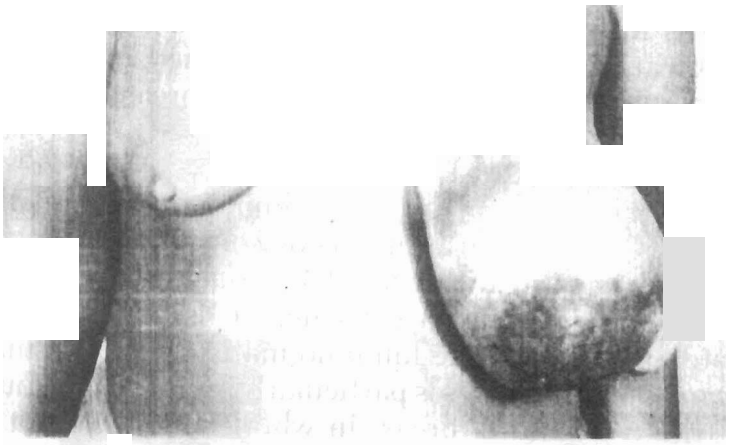
The breast is an appendage of skin and is a modified sweat gland. It contains some six to eight segment of glandular tissue, each drained by a duct opening on the nipple. The shape of the female breast is due to fat contained within fibrous septa. In adolescents and young adults, the breast is firm and prominent; with age the glandular and fibrous elements atrophy, the skin stretches and the breast sags. Enlargement of one or both breasts may be observed in the new born. This may be associated with secretion of colostrums like fluid ('witches milk') from the nipple. One should never interfere surgically with developing breasts lest serious distortion of their eventual form is caused, or inadvertent mastectomy is performed.

In adulthood when a female patient presents at a surgical clinic with complaints of her breast exhibiting different texture, discomforts, nipple discharge, recent retraction or

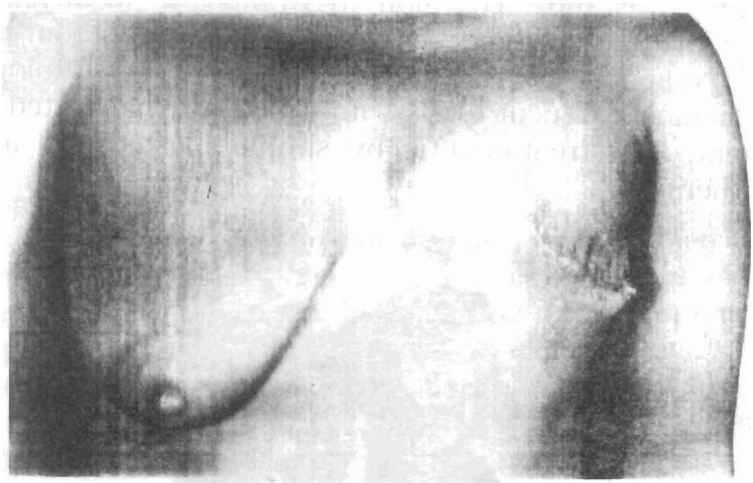
distortion, strict routine breast examination must be done. Should a lump be felt, its position, size, consistency and discreteness must be carefully recorded. It is particularly important whether a lump is smooth, roughened, or nodular and whether it is separate from surrounding breast tissue or integrated within it.

Breast cancer usually presents as a lump which is painless or at most associated with a tingling discomfort. The mass is readily palpable, hard with irregular surface which merges into the surrounding breast tissue. It is important to appreciate that any discrete lump no matter how big, small, mobile can be a cancer. This is particularly important in young women with a glandular breast in whom cancer cannot be distinguished clinically from a small fibro adenoma. Risk of breast cancer is said to increase with age in the western countries. It is most common in women of 50-60years; however the age incidence is lower in Nigerians. From the time of diagnosis by Fine Needle Aspiration Cytology, Radiodiagnosis, Trucut biopsy, no time must be wasted in treatment. The treatment is by simple mastectomy and chemotherapy.

The picture shows Justinian and Theodora, 438 – 565 B.C., Theodora, Bryzantine empress and wife of Justinian, chose to die in pain rather than have her breast removed.



Left breast cancer before surgery



Left breast cancer after surgery

TUBERCULOSIS OF THE BREAST

Tuberculous mastitis is an uncommon lesion even in countries where the incidence of pulmonary and extra pulmonary tuberculosis is still very high. It was initially believed that mammary tissue was completely immune to tuberculosis

infection until Sir Astley Cooper reported the first case of primary tuberculous mastitis in 1829.

The first documented report of tuberculous mastitis in Nigeria was by Mackeown and Wilkinson in 1952. We examined 671 breast biopsies over a ten year period and found only one case of tuberculosis and this is reported.

A 36 years old married female school teacher presented in the surgical out patient department with one year history of pain in the left breast not relieved by analgesics. She noticed a lump in the same breast two months before presentation. There was no history of chronic cough, night sweat, weight loss, or bone pain. She was gravida 5 para 4. All her previous children were breastfed. But because of the problems with the breast she did not breastfeed the last baby.

Examination revealed an anxious looking young woman who was afebrile and not pale. The left breast was found to be bigger than the right breast with distended veins over it but without nipple retraction or discharge. A tender hard irregular shaped mass measuring 5cm by 4cm was found. Both axillae were free of enlarged lymph nodes. At operation the mass was found to have a nodular surface. Excisional biopsy revealed preservation of the breast architecture. lobules were infiltrated by chronic inflammatory cells. There were large areas of interstitial granulomatous inflammatory reaction with tubercule follicles and Langhams giant cells. Ziehl-Neelsen stain revealed acid fast bacilli in the follicles

Slide: Histopathology stained slide with ZN stain showing acid fast bacilli in the tuberculous breast follicles

The patient was commenced on anti tubereulous therapy. The breast wound healed subsequently and 12 month after there was no recurrence

"It is not of him/her that willeth....."

Hangensen (1971) reported an incidence of one in 1600 breast biopsies. Cohen (1977) from South Africa found 34 cases out of 22,000 specimens over a 25 year period, while Alagaratnam and Ong (1980) over a similar period of time in Hong Kong found 16 patients with tuberculosis of the breast out of 1340 breast lesions.

From the breast biopsies examined, 532 were reported as benign lesions while 139 were malignant with only one case of tuberculous mastitis. The features of tuberculous mastitis are now well defined. It is commonest in women especially of child bearing age.

There is need to watch out for symptoms of painless, hard lump in the breast or axilla and features of inflammation and abscess formation. This patient had a solitary breast lump

which was a case of primary infection by direct innoculaton After twelve months of chemotherapy, the patient was fully cured of the infection without transmission to the baby.

Inguinal-Herniae

Prospectively we studied 138 patients with inguinal herniae over a 4 year period at OAUTHC Ile-Ife. The investigation included those who after prospective counselling in the various forms of anaesthesia accepted **local anaesthesia**. Excluded were patients with bilateral recurrent, obstructed, strangulated or giant inguinoscrotal hernia (that is a size bigger than the patient's head).

Table 22 shows sex distribution with a male- female ratio of 6:1

Table 22: Sex distribution

	Male	Female	Total	Male:Female Ratio
Number of Patients	118	20	138	6:1
Percentage %	85.5	14.5	100	

The mean age range at diagnosis was 49 years.

Table23:. The majority of the cases were bubonocoele and funicular in character

Table23: Characters of the herniae

Type of hernia	No of patients	%
Inguinoscrotal	30	21.7
Funicular	36	26.1
Bubonocoele	72	52.2

All the patients received a field block anaesthesia using the seven steps of infiltration technique described by Ponka. Lignocaine (0.5%) with adrenaline (1:1000) at a dose of 4mg per kg was administered. Intramuscular pethidine 50 - 100mg was given as premedication in order to reduce anxiety. This injection was given 45 minutes before surgery.

An intravenous line with 5% dextrose saline was always set up in case of adverse reactions or decision to convert to general

anaesthesia. All repairs were by the use of simple Bassini. Technique applying interrupted Nylon-O-sutures. Throughout each operation, the simple verbal complaints and or facial expression were noted without any suggestive questions. The measurement of acceptability or tolerance was recorded as being good, fair, poor or none.

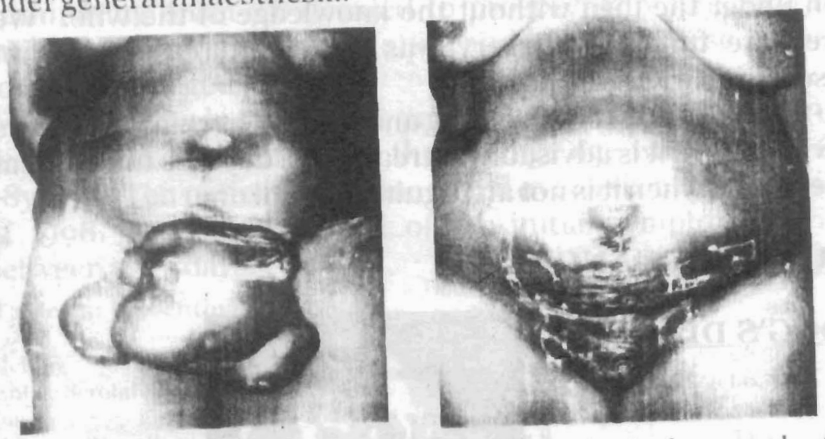
Table 24: Acceptability of local anaesthesia

Age (Year)	Number of Patients	Tolerance in pc			
		Good	Fair	Poor	None
15-29	20	5	5	6	4
30-44	43	11	13	13	6
45-59	35	25	8	2	
60-74	25	20	4	1	
75 and above	15	14	1		-
Total	138	75 (64.4%)	31 (22.5%)	22(16.8%)	10(0.2%)

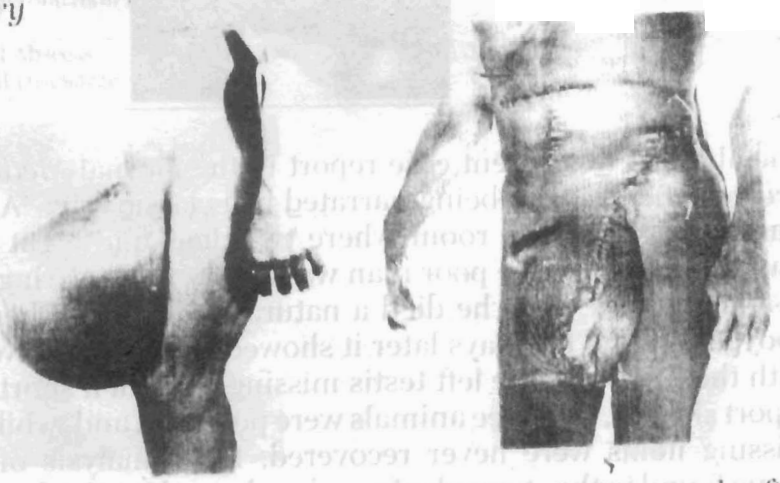
Table 24 shows the details. Good was found in 75 patients (54.4%) in the age (45-59) years six of these patients were between 70-85 years. Postoperative complications were serotal haematoma in 5 (16.7%) of those with inguino scrotal hernia and pyrexia was noted in the same number of patients which resolved within 72hrs. Discharge time varied between 6 -72hrs after operation. 88(63.8%) were discharged by the first 24hrs. After a follow up of one year recurrence of the inguinia hernia was noticed in one male patient aged 60 years.

It is rare to find a person who is not afraid of a surgical operation no matter how minor the procedure or the type of anaesthesia. To the patients, classification into minor, intermediate or major surgery is meaning-less, all operations for them should be regarded as major. We found out in 76.6% of cases a field block using lignocaine and adrenaline was a satisfactory route of anaesthesia. Our study showed also that the procedure was better tolerated in the older patients than the young ones. This difference in tolerance may in part be due to a cultural acceptance among the Nigerian elderly that the decisions by doctors should remain unchallenged. It might also be due to an absolute high pain threshold among

the elderly ones. Perhaps, conditioned acceptance of pain without complaining or even fear of general anaesthesia as an alternative route might be used to explain the difference. These numerous advantages and the low morbidity rate makes local anaesthesia favorable in inguina hernia repairs especially in the elderly. Management of incisional and inguino-scrotal herniae pose extraordinary challenges to the surgeon. Therefore, these two types of herniae were surgically repaired under general anaesthesia.



Picture show Lobulated incisional hernia before and after surgery



Picture: Giant Inguino Scrotal Hernia before and after surgery.

In the management of hernia in general, patients related factors go beyond co-morbid factors and old age, but include home support, distance and access between the patient home and hospital, personality type and regional environment.
Bassini repair is no more a fashionable method of inguinal hernia repair in developed countries. Use of dual mesh PTEF posterior wall repair is being recommended. Who would have imagined that such a huge inguinoscrotal hernia would have been under the toga without the knowledge of the wife. We were sure fund for surgery was the main reason for not presenting early at the hospital.
Due to labourous work, farming and old age, hernia will always be with us and it is advisable to treat it as a daycase under local anaesthesia when it is not an Inguino Scrotal one.

FOURNIERS GANGRENE

A DOG'S DINNER

The abstract to a recent case report in the journal *Medicine, Science and the Law* being narrated in a classic way: "A man was found dead in a room where two dogs and a cat were wandering freely. The poor man was apparently wearing only his underpants when he died a natural death, but when the body was found two days later it showed large genital wound with the penis and the left testis missing. To cut a short case report shorter, the three animals were put down and, while the missing items were never recovered, DNA analysis of soft tissue found in the stomach of one dog showed it to be from the man. This emasculation although a rare event could have been perpetrated by the domestic animal and that phenomenon

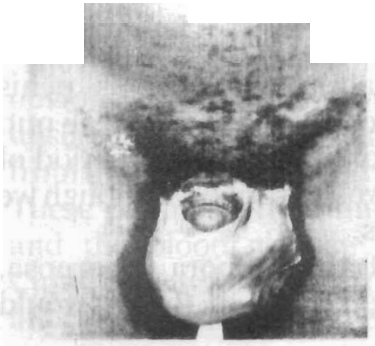
tends to be preserve of carnivores and rodents.

In 1883, Fourniers reported five cases of spontaneous fulminating, rapidly spreading infection and gangrene of the scrotum. In 1974 Smulewicz and Donner classified the scrotal gangrene into primary and secondary: the primary was considered as the classical Fourniers gangrene in healthy subject while secondary are as a result of trauma and infection. Because of the obscure nature, the bizarre aetiology and the fulminating onset we decided to prospectively look into the problem in terms of presentation and how best these patients could be managed.

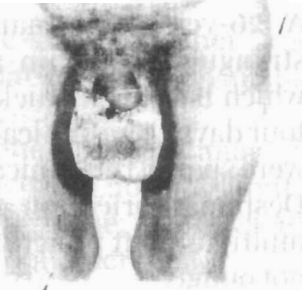
We prospectively studied 18 patients at OAUTHC over a 3½ year period. We found that the average age was 45years (3-68years). Ten patients were managed over a six months period in 1998. The time of onset of the initial symptoms varied between 5 - 15 days.

Table 25: Presenting Symptoms

	No. of Patients	%
Itching	12	66.7
Entire Scrotal Skin Gangrene (bag of pus)	12	66.7
Peppery Sensation	8	44.4
Scrotal Oedema	6	33.3
Partial Scrotal Skin Necrosis	6	33.3
Pain	5	27.8
Perineal Abscess	3	16.7
Urethral Discharge	3	16.7



Bag of Pus in the Scrotum



Necrotic Scrotal Sac

Scrotal itching prior to scrotal gangrene and frank "bag of pus"

were the two commonest presentations with 12 patients each. Six patients were found with scrotal oedema while another six presented with partial scrotal necrosis. One of the patients with scrotal oedema fell from a palm tree and sustained urethral injury with extravasation of urine into the scrotum and phallus (penis). He had urinary diversion by suprapubic cystostomy and then management of his scrotal gangrene that ensured from scrotal oedema.

The parts of the genital organ affected are summarized in Table 26.

Table 26: Genital Organ Parts Affected

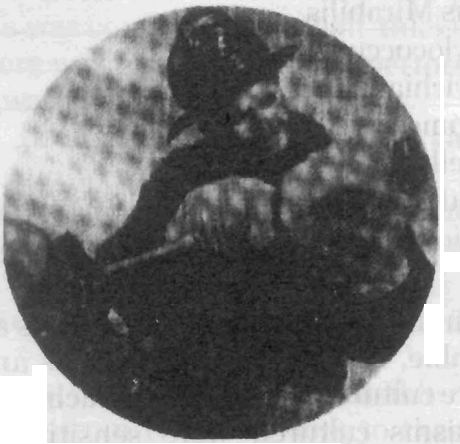
Organ	No.	%
Scrotum only	8	44.5
Scrotum + penis	2	11.1
Scrotum + perineum	2	11.1
Scrotum + perineum + penis	6	33.3
Total	18	100%.

Scrotum only was affected in 8 patients while scrotum + perineum and the penile shaft were affected in 6 cases.

Penile Fourniers Gangrene: "A tough nut to Crack"

"A case report in the *Annals of the Royal College of Surgeons of England* caught my eye in the library sometimes ago. It recorded the help a fire brigade had offered in a difficult and embarrassing case.

A 26-year- old man had been admitted with his penis strangulated within a large octagonal, tempered steel nut, which had been stuck on the base of his penis for a period of four days. The clinical picture was well described, although we were spared the clinical photographs.
Despite lubrication, aspiration of the corpora cavernosa, multiple shaft punctures and firm compression, the nut would not budge.
The local fire brigade was called to help.'



Under a general anaesthetic and with a metal spatula between the penile skin and the nut, a ceramic-bladed circular saw, under constant saline irrigation (to prevent thermal injury), was used to produce two cuts 180 degrees apart through the metal constrictor until the nut gave up its vice-like grip. No doubt every *double entendre* concerning nuts and screws was used in the theatre banter. The patient eventually made a full recovery with normal micturition and erectile function". The report noted the extensive experience that fire brigades have in removing constricting metal objects without causing soft tissue injury, and encouraged that this expertise should be sought as early as possible in the management of such patients .The report did mention the more
obvious approach of an appropriate-sized spanner and unscrewing, but perhaps that is all that might be available from the local fire fighter crews.

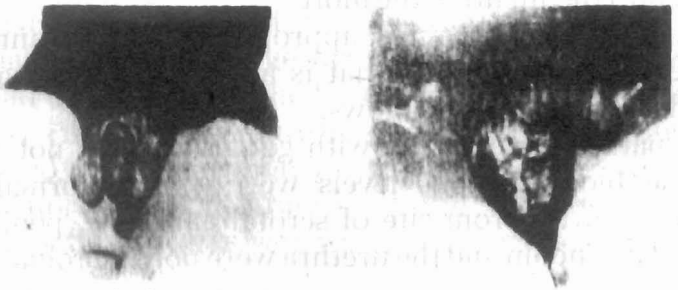
These patients presenting with gangrene were not anaemic and the blood glucose levels were within normal limits. Culture growths from site of scrotal gangrene, penile shaft, affected perineum and the urethra were polymicrobial.

Table 27: Micro-Organisms Isolated	
Proteus Mirabilis	6
Staphylococcus Aureus	5
Escherichia Coli	4
Pseudomonas Aeuriginosa	4
Klebsiella	3
Clostridium Perfringens	1
Bacteriodes Fragilis	1

Proteus Mirabilis, Staphylococcus Aureus and E.coli were the most culpable. Clostridium perfrigens and the bacteriodes fragilis were cultured in one patient each.

The organisms cultured were sensitive to Ampiclox and gentamicin sulphate as a combination therapy in seven patients for 1 week while intravenous Cefoxitin 2g twice daily was administered on the remaining patients. Anti-tetanus serum 1,500 i.u stat after test done and tetanus toxoid 0.5ml intramuscular injection were given. Those presenting with partial skin necrosis and ulcers were dressed daily with "Super solution" till wound was clean. "Super solution" consists of a mixture of Eusol 500ml, liquid paraffin 500ml, and 1g of streptomycin sulphate.

We described these patients of ours with "bag of pus" extensive necrosis and gangrene and applied limited debridement and daily open dressing with super solution. Twelve patients had complete denuded testis when the scrotal sac sloughed off.



Picture: *Denuded testis due to Fourniers gangrene (Before and after repair)*

Mobilisation of the retracted scrotal skin to cover the completely denuded testes was carried out in our patients and sometimes this was combined with half-thickness skin direct grafting. There was no orchidectomy performed in this series and neither was any death recorded.
This ailment had been described as scrotal gangrene by Fournier in Paris and as infective gangrene by Pande and Mewara in 1976, necrotizing fasciitis by Kearney and Carling in 1983. We have advocated that the appropriate name for this disease should be **"male genital gangrene"** as it does not affect only the scrotum but also the phallus and perineum.

It is advisable to try as much as possible to reduce psychological trauma from testicular loss to these patients. Scrotal reconstruction without orchidectomy is advisable. Provision of good water will definitely improve their genital hygiene and prevent onset of disease.

ACUTE ABDOMEN

Intra abdominal cysts

There are 3 types of intra abdominal cysts that are uncommon.

1. Pancreatic pseudo cysts
2. Omental cyst
3. Messenteric cyst

These cysts were investigated in a review and prospective studies in our centre.

Pancreatic pseudo cyst:

Pancreatic pseudo cyst is localized collection of amylase rich pancreatic secretions enclosed in a wall of fibrous or granulation tissue without an epithelial lining.
Pancreatic pseudo cysts are uncommon and very few cases have been reported in Nigeria. Over a period of 3 years, 6 cases were studied and in 1991 additional 5 cases were seen.
The youngest patient was 12 years old; 4 patients were between 30-40 years and the oldest patient was 70 years old.

Table 28. Signs and symptoms

Patient	Age (years)	Sex	Abdominal pain	Nausea/ vomiting	Weight loss	Ascites	Melaena	Tenderness	Abdominal Mass size (cm)
1	12	M	+	+	+	+	-	+	10x12
2	40	M	+	+	-	-	-	+	12x15
3	35	M	+	+	+	-	+	+	6x5
4	70	F	+	+	+	-	+	+	14x16
5	30	M	+	+	+	-	-	+	9x12
6	35	M	+	+	+	-	-	+	12x16

Table 28 shows the ages and corresponding signs and symptoms and duration of illness at presentation with most of the patients presenting after 4 weeks.

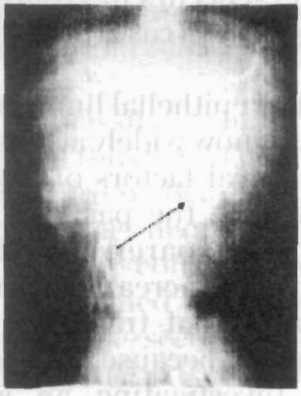
There was a history of trauma to the youngest patient, two patients had penetrating posterior duodenal ulcer while the remaining 3 had a history of regular consumption of large quantities of alcohol. All patients had abdominal pain nausea and vomiting. Weight loss was significant in five. Abdominal masses of different sizes were palpable and measured in all the six cases, while ascites found in the 12 year old boy.

We investigated these patients. Most of them were not anaemic but had elevated leucocyte counts. Serum amylase was also elevated in these patients. Plain abdominal x-rays in all the patients showed soft tissue shadows. On Barium studies, an ***exogastric*** mass displacing the medial and anterior aspect of the stomach was found.

X-Ray: exogastric mass displacing the medial and anterior aspect of stomach.

Xray: netrogastric mass compressing the medial and posterior aspect of the stomach

A further probe with the barium study revealed a retro-gastric mass compressing the medial and posterior aspect of the stomach stretching the lesser curvature and subsequent gastric mucosa, causing compression deformity of the duodenum as well. The ultrasound scan showed circumscribed masses with cystic component. Abdominal aortogram done on one patient showed stretching and displacement of the splenic artery while the renal artery was displaced downwards and bowed



Xray: Abdominal aortogram showing stretched bowel and displaced splenic artery

It seems that one bright spark of a surgeon has put together the necessary calculations to come up with the conclusion that surgery could help in this condition. At surgery location of the pseudo cyst was most in the body and they were all uniloculur. Cystic contents ranged from 500 to 3100ml, mostly chocolate coloured dominating; 4 patients had simple cystojejunostomy while cystograstrostomy which is called Jurasz procedure was performed in one patient with uneventful postoperative period.

Table 29: Patient's treatment and outcome

Patient's serial number	Age(years)	Sex	Treatment options	Outcome
1	56	Female	Conservative management	Did well
2	18	Male	External drainage	Died 24 hours post-op
3	70	Male	External drainage	Cyst recollected
4	55	Male	cystogastrostomy	Developed diabetes mellitus
5	34	Female	cystogastrostomy	Did well

The histology reports show that all the biopsied fibrous wall have no epithelial lining.
Pancreatic pseudo cyst occurs in 20-40% of cases of chronic pancreatitis and in 5-10% of cases of acute pancreatitis.

We established lack of epithelial lining of the wall of the cysts in our study and this is now widely accepted.
Predisposing aetiological factors of alcoholism and trauma had been highlighted in the past. Trauma causes ductal distruption and intra parenchymal haematoma with consequent seepage of pancreatic secretion and pseudocyst formation. We found that traumatic pseudo cyst do not resolve spontaneously because of lack of direct ductal communication. Investigating an abdominal mass by ultrasonography should be the primary choice. It helped us to determine accurately the cystic component in our patients in about 80-90% sensitivity.

Nigeria, a developing country with only 6 breweries in 1970

has over 30 breweries at present. More people now take alcohol and the incidence of pancreatitis and pseudocyst formation would be on the increase.

Mesenteric/Omental Cysts

Benivieni the Florentine anatomist is credited with the first description of a mesenteric cyst which he found in an 8 year old boy at autopsy in 1507.

Gardner in 1852 described an omental cyst. Several authors have indicated that the lesions may be grouped together because of similarities in their embryology and pathology. Previous reports from Europe and North America have given an incidence of one in 75000-125000 hospital admission. In our series five patients 2 female, 2 males and a 2-year old boy were encountered age range 22-65years over a period of 10 years with an incidence of one in 48,497 hospital admissions. In view of their rarity surgeons have tended not to consider the possibility of mesenteric or omental cysts when they come across a patient with an abdominal swelling and mass.

To the best of our knowledge there have been only two cases of these cysts reported from Nigeria by Adekunle and Solanke in 1975 and we are reporting five cases of mesenteric cysts mainly in adulthood between 1979 and 1988.

Several theories and classification schemes have been advanced for the origin of the cyst. The most widely accepted currently is that put forward by Bearhs *et al* (1950). The cysts can be congenital, traumatic, neoplastic or infections. Most investigators believe that the congenital cysts arise from the continued growth of malformed or malpositioned lymphatic tissue. Traumatic cysts arise secondary to haemorrhage or rupture of a lacteal vessel with extravasations of chyle into the mesentery or omentum. Infections on the other hand may be secondary to mycotic, parasitic or tuberculous infection in the abdomen or cystic degeneration of lymphnodes.

A year after we reported the first 5 cases in 1989, in 1990 five more cases in children were reported again by our team (4

males and 1 female child).
These new five cases had between them also six cyst with one (cases 3) having two cysts. All the six cysts were probably congenital in origin. The thickened fibrocollageneous wall of the cyst in cases 1-4 is most likely to be due to secondary bacterial infection.
The ages of these patients are from 13 days to 13 years. They exhibited signs and symptoms of abdominal distension, swellings, pain which could be sudden onset, and colicky in nature. Case 2 had a history of abdominal pain of 18 months duration. The results of investigation on barium meal include gastric shadow displaced upwards while colon displaced downwards. Sometimes hydroureters and displacement were found with features of intestinal obstruction. The investigating surgeon at the time of presentation suspected omental / mesenteric cyst intrussusception with ovarian mass and pancreatic pseudocysts as differential diagnosis.

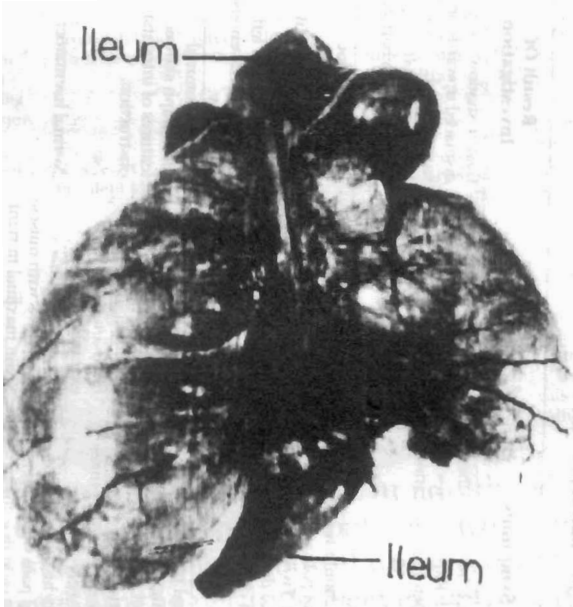
Omental and mesenteric cysts vary in size from a few centimeters in diameter to a giant mass that may occupy the whole abdomen. While omental cysts are restricted to the omentum mesenteric cysts may be found anywhere from the duodenum to the sigmoid colon. About 50% of mesenteric cysts are found in relation to the small intestine and about half of these are in the mesenteric of the ileum.

Physical examination of patient may be unrewarding because the cysts are palpable in only about 25-50%. The cysts were however palpable in three patients possibly because of the relatively thickened walls. When palpable omental cysts would be mobile in all directions if there are no inflamatory adhesions to the abdominal wall, mesenteric cysts on the other hand are characteristically described as being more mobile in the transverse plane.

Ultrasound and computed tomography are accurate in defining the nature and location of the cysts. The increase use of these two non-invasive modes of investigation will no

doubt increase the preoperative diagnosis of these lesions. Several surgical procedures have been tried in the past. Enucleation of the cyst is currently considered the surgical procedure of choice. However, if the cyst is too close to the bowel wall or if the dissection of the cyst may compromise the blood supply of the adjacent bowel the resection of the cysts and adjacent segment of the intestine is preferable.

The histopathology of the cyst wall showed fibro-collagenous wall with chronic inflammatory cell infiltration. The outcome was uneventful and all were alive and well.



Cysts with ileum

Table 30: clinical presentation of five cases of omental and mesenteric cysts

Patients	Age Sex	Symptoms	Signs	Result Of Investigation	Provisional Clinical Diagnosis	Differential Diagnosis
Case 1	13 years Male	Abdominal distension since childhood. Rapid increase in size just before presentation.	Huge intraperitoneal cystic swelling (fig.1).	Gastric shadow displaced upwards on barium meal Colon displaced downwards on barium enema	Omental cysts	i)Mesenteric cyst ii) Pancreatic pseudo cyst
Case 2	7 years Female	Eighteen month history of abdominal pain with occasion vomiting. Two day history of abdominal distension. Past history of rheumatic heart disease.	Firm, immobile, tender, right sided infraumbilical swelling signs of cardiac failure.	Enlarged cardiac shadow on chest radiograph bilateral hydroureters with displacement of left ureter on intravenous urography.	i) congestive cardiac failure ii) burkitt's lymphoma	i)right ovarian mass ii) abdominal tuberculosis
Case 3	2 years male	Abdominal pain of sudden onset, progressive abdominal distension. constipation. Respiratory distress of three days duration.	Dyspnoea, dehydration abdominal distension. Tender mass in right iliac fossa. Bloody faeces on rectal examination.	Plain abdominal radiograph showed features of intestinal obstruction.	intussusception	
Case 4	12 years Male	Four days history of colicky per umbilical pain which later spread to right iliac fossa.	Lower abdominal tenderness with muscle Spain maximal in right iliac fossa. Right anterolateral rectal wall tenderness.	Normal haematocrit	Acute appendicitis	
Case 5	13 days male	Abdominal mass of five days duration.	Smooth, spherical mass in right iliac fossa transversely mobile.	Normal urinary tract on intravenous urography	Mesenteric cysts	Intestinal duplication cysts

Table 3: Operative findings, surgical procedure and outcome in five cases of omental and mesenteric cysts

Patient	Operative Findings Site/size of cyst	Contents of cysts	Surgical procedure	Histopathology of Cyst Wall	Outcome
Case 1	Vascular cyst (6kg) in greater omentum	Thick chocolate coloured fluid	Excision of cyst	Oedematous, fibrocollagenous wall with chronic inflammatory cell infiltration, lined with flattened epithelium	Uneventful postoperative period. Discharged after 2 weeks. Alive and well
Case 2	Cysts in Omentum (10X8cm) adherent to loop of jejunum (i) Cysts in ileal mesentery (10X10cm) (ii) Cyst in sigmoid mesocolon (8x6cm) Both Causing bowel occlusion	Thick brownish fluid	Resection of Cyst and bowel Bowel anastomosis	Haemorrhagic fibrocollagenous wall and inflammatory cell infiltration.	Discharge after one week. Alive and well
Case 3		400ml dark brownish fluid in both cysts	Wall of cysts partially excised, internal drainage into peritoneal cavity	Oedematous fibrocollagenous wall with chronic inflammatory cell infiltration	Discharge on 12th postoperative day. Alive and well
Case 4	Cysts in ileal mesentery (6x6cm)	Purulent Fluid	Enucleation of Cyst	Fibrocollagenous wall with smooth muscle and lymphoid aggregates and chronic inflammatory cells	Discharged on 14th postoperative day. Alive and well
Case 5	Cysts in ileal mesentery (9x9cm) adherent to adjacent bowel	Chylosis Fluid	Mass and intestine resected. Intestinal anastomosis	Cyst wall lined by a layer of flattened mesothelial cells	Postoperative wound infection, successfully managed with antibiotics. Discharged after 39 days. Alive and well

In our series of pure mesenteric cyst in adulthood, simple enucleation was feasible in one patient, while in three patients the cysts with adjacent bowel were resected, and an internal drainage into the peritoneal cavity in the only child. All the patients made satisfactory postoperative recovery with no mortality. It seems that mesenteric cyst is more common in blacks than in Caucasians and twice as common in females as in males. Surgeons should therefore have a high index of suspicion.

Vascular Access

Patients presenting with end stage renal disease would at one time or the other need haemodialysis as a form of renal

replacement therapy. This normally requires a blood access construction to facilitate the dialysis procedure. Various types of blood access are available and several techniques have been developed to obtain adequate blood flow. Criteria for a satisfactory blood access include:

(A) good blood flow of 100-300ml/min
(b) must not cause cardiac overload
(c) there should be no haemorrhage
(d) complications such as thrombosis and infection must be preventable
(e) should not hinder daily activities and movements

In recent past, Quinton *et al* (1960) invented cannulae for use as external shunts. Currently only the integral siliconised rubber (silastic) cannula with bigger internal diameter remain in use. Direct femoral vein puncture, subclavian percutaneous puncture and the jugular venous access form the basis of venous catheter insertion by the Seldinger method and other modifications.

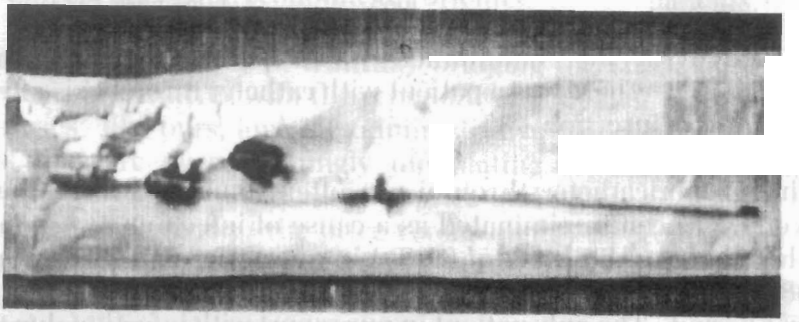
Jugular venous access however using permanent dual lumen catheters is being considered as a gold standard of venous blood access for short, medium and probably long term purposes. In our pioneering efforts nine patients with end stage renal failure and with serum creatinin in excess of 1000μmol/litre, creatinin clearance below 5ml/min underwent jugular venous access over a two year period. All but one had poor peripheral vein suitable for an A-V fistula.

The patients had:

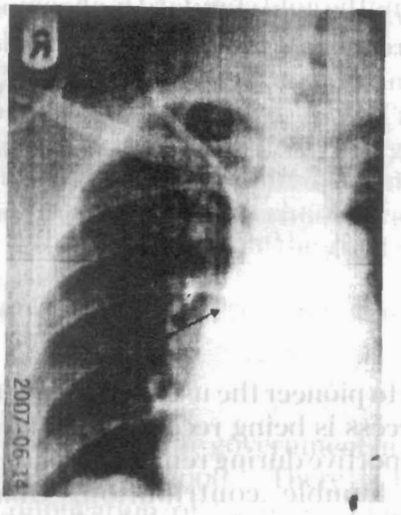
A- failed femoral vein puncture
b- failed subclavian access
c- failed CAPD and
d- failed A-V fistula due to inadequate blood flow.

Procedure: The neck was exposed above and below the clavicle. After adequate skin preparation the right/left jugular vein was used. Under general anaesthesia the patient was tilted

to head-down position to allow the external jugular to fill. A two centimeter transverse incision was made over it and above the clavicle. The exposed vein held between two sutures was opened and the catheter gently introduced and secured.



The interal jugular was approached posterior to the sternocleidomastoid muscle. The vein held with a moon-shaped clamp was opened and the catheter gently introduced in the same manner. Post insertion check x rays were done.



X-Ray shows the post insertion of Jugular Catheter in R. Atrium of the heart.

Seven males and 2 females' age range 22-66 years with a mean age of 52.5 years were seen.

Table 32

Age Range	No	%
Male	7	77.8
Female	2	22.2
	9	100%

Age range

22 – 66 years

mean age: 52.5 years

Haemodialysis was maintained for a period 9-12 months satisfactorily. There was a patient with catheter thrombosis after six months of insertion.

Although pericatheter thrombi are often found, however they have never been incriminated as a cause of infection associated with catheters. Buller *et al* (1987) in one series and Moss et al (1986) in another did not report catheter related bacteremia over a 1 year period. The only patient in our report with infection due to staphylococcus-aureus and pseudomonas aueriginosa was possible due to peridialysis ports manipulation. It is now widely believed that most infections are usually caused by breaks in sterile techniques during dialysis when the catheter ports were under manipulation. Where A-V fistula creation is not possible this procedure forms the gold standard for haemodialysis.

Table 33: Comparison with another access technique

	Jugular Venous Access (Akinola et al)	Arterio Venous Fistula (Humphries et al)
Construction	Very Easy	Easy
Age of Patients	Age range: 22 – 66 years Mean age: 52.5 years	65 years
Blood flow	Very Adequate	250 – 500ml/min
BP during dialysis	160/100mmHg One hypotensive	Slight fall
Infection	One	None
Thrombosis	One	None
Patient period	3 – 9 months	3 – 4 years

We have been able to pioneer the use of this catheter and therefore Jugular venous access is being recommended for haemodialysis prior and even supportive during renal transplantation.

Further to this humble contribution, Obafemi Awolowo University, Ile-Ife in 2002 performed the first indigenous Kidney transplantation in Nigeria and West Africa Sub-Sahara.

The Future

World surgery if we can use the term cover a most heterogeneous international panorama of the art and science of applying surgical

skills to healing of disease, and has a common foundation of scientific knowledge and ethical values. Above all, the ethical foundation of surgery must now shift from the pure Hippocratic mandate of serving the very sick, toward a new ethic confronted with polices that impose an economically oriented triage of patients.

Thus we face the task of fruitfully bridging the Hippocratic and scientific imperatives with the economic confinement in the "poor countries" like ours, and the administrative mandate in the rich ones that are overwhelmingly modulating organized medicine towards rationing health care by price and ability to pay, or by bureaucratic decision - the price versus quality issue. "It is not of him that willeth .... but through God's mercy".

Surgical Education:

Graduate surgical education is under great stress and strain. In many countries it is felt that primary medical care should regain primacy and that technological specialties should be curbed. What often gets buried in the argument is that even if you reduced the number of technique oriented specialist you would still have to wrestle with issues of; who trains the ones we keep? Who pays for their education? Where will they be trained? How will equipment be obtained? How will we ensure improvements in the techniques? How can we evaluate evolving technology? Can we deny our populations the most effective technology? Surgeons of the next generation will perforce and are required to understand and be facile with old, traditional and new technological driven surgical techniques. We must therefore straddle the great divide, adopt and implement the best of both options.

But whose responsibility is it - government, industry or the physician?

Facilities

Facilities are being provided by the government in all the 14 Federal tertiary institutions. This is good. There is need however to economize on the duplication of facilities, equipment and even personnel where an oversupply of expensive services develops in close proximity. Organized cooperation will be the byword rather than "healthy competition/rivalry" between institutions and surgeons.

Regulation

Speaking of regulation and responsibility, as we engaged in changing morbidity and mortality rounds to quality assurance conferences and physicians to healthcare providers, then comes the outcome analysis and practice guidelines. I think those who would regulate our clinical behavior may well be searching for ways to get a handle on how safe we are, how efficient, how economical and whether what we do is for common good. We must set the parameters and guidelines not in a self serving manner but in the interest of the patient.

Revolution

We surgeons must be prepared to face the challenges of today and tomorrow. "Would you realize what revolution is, call it progress, and would you realize what progress is, call it tomorrow" Sobering however is the issue of complications. One hears much rationalization about "the learning curve" which may be acceptable for a completely new or much needed hitherto unavailable procedure but if the surgical intervention is technically "the same operation" how can we expect our patients to accept misadventures due to the surgeon's "learning curve"? The patients now know their rights. The learned gentlemen of the law, the Senior Advocators, the Bench and the Jury are now waiting in this day of changing Nigeria. Apparently there is a herb that calms down doctors who have been upset after reading the claims for negligence - "Herbs for Health".

Picture: Shows the doctor reading the composition of the "Herbs for Health" to calm him down due to negligence while the wife watches with disgust.

We must avoid the situation of the past when our patients will look out for spontaneous remission or even faith healing perhaps from traditional and spiritual healers.

The goal should be a planned strategy that promotes both progress and advancement. With the key in the perfect key hole it will open the

door to a less grim *future*.

In the words of the famous physicist, Albert Einstein in 1921 and I quote, "I would not call it "research" if I knew what I was doing....."

Albert Einstein

Mr. Vice Chancellor Sir, perhaps Sophocles was correct when he said that "you never know until evening how great the day has been", but from my limited perspective of Surgery at Ife even though the dawn is yet upon us we can surely describe this as already a good day. Distinguished ladies and gentlemen; I thank you for the privilege of addressing you and for your attention. God bless.

REFERENCES

AKINOLA, O.; ARIGBABU, A.O.;(1994) Pattern and presentation of large Bowel Neoplasm in Nigerians. *Central African Journal of Medicine*. V 01.40,4. 98 - 101.

AKINOLA. O. AKINSOLA, A,: ADELEKUN, A. (1996). Jugular venous access for short - term Haemodialysis- IFE. Experience: *West African Journal of Medicine*. September 1996

AKINOLA, O.D.; AGBAKWURU, E. (1991) Management of rectal prolapse in Ile - Ife, Nigeria *East African Medical Journal*, 68: 10, 795 - 800.

AKINOLA, O. (1988) Pancreatic pseudocysts in Ile -Ife, Nigeria-Report of 6 cases *Tropical Doctor*, 18, 163 - 166.

ARIGBABU, A.O.; OMOLE, C .O; **AKINOLA, O.** (1986) Duodenal ulcer treated by highly selective vagotomy. Evaluation of experience in Nigeria. *Tropical Doctor*, 16; 160 - 163.

AKINOLA, O. AJAYI, P.A. (1990) Fourniers gangrene in Nigerians: Presentation and Management. *The Central African Journal of Medicine*.Vol.36, 7, 166 - 170.

AKINOLA, O.: ADEJUYIGBE, O.: DARE, F.O. (1989) Mesenteric cysts in Nigerians. *The Central African Journal of Medicine*. Vol.35, Number 10, 513-517.

AKINOLA, O.; ADEJUYIGBE, O.; ODESANMI, W.O.; (1989) Primary tuberculous mastitis in a Nigerian woman - Case Report and Review of literature. *West African Journal of Medicine*. Vol.8.Number 3, 209 -212.

AKINOLA, O.: HAMED, A.D. (1980) Fistula in Ano in Nigerians. *Tropical Gastroenterology*. Vol. 10.Number 3, 153 - 157.

HAMED, A.D.; **AKINOLA, O.** (1990). Intestinal ascariasis in the differential diagnosis of peptic ulcer disease. *Tropical and Geographical Medicine*. Vol.42, Number 1, 37-39.

AGBAKWURU, E. A. **AKINOLA. O.**, ADEJUYIGBE O., KOMOLAFE E. O., (1998) Intestinal Obstruction In A Child with An Exceptional Ascaris Burden.- A Case Report, Nig. *Qt. J. Hosp. Med.* Vol. 8(4):270-271

AGBAKWURU, E. A. ARIBAGBU, A.O. **AKINOLA. O**. (1995) Local Anesthesia in Inguinal Herniorraphy, our Experience in Ile-Ife, *Nigeria Central African Journal of Medicine*. Vol.41, 12,405 - 408.

FASHAKIN, E.O. **AKINOLA, O.** ODESANMI, W.O. (1989) Fatal accidental puncture of the left ventricle, Case Report *The Central African Journal of Medicine*. Vol.35, 11, 537 -538.

KIMOT, O.D. KIRBY, R.M. **AKINOLA D. O.**; TEMPLE J.G. (1991) Prospective randomized trial of Nissen Fundoplication and Angelchik prosthesis in the surgical treatment of medically refractory gastroesophageal reflux disease.

G.B. GADIERE., J. HIMPENS, J. BRYYNS. Laparascopic Surgery and the third world. *Surgical Endoscopy*. (1996) Vol. 10, Number 10, 957 - 958.

OJO, O.S.; ODESANMI, W.O.; **AKINOLA. D.** (1992). The Surgical Pathology of colorectal arcinous in Nigerians. *Tropical Gastoenterology*. Vol. 12, Number 4, 180 - 184.

WESLEY S. MOORE. Endovascular Surgery: State of the Art - Introduction *World Journal of Surgery*. (1996). Vol. 20, Number 6 - 621.

K. A. FORDE, L. HULTEN. Laparoscopy in colorectal surgery. Surgical Endoscopy 1996, Vol. 10, Number 11, 1039 - 1040.

JOSE E. PATINO. Triumph of Molecular Biology and the Rise of Biomedical science *World Journal of Surgery* 1990. Vol.14, Number 5, 559 - 561.

DAVID HICKS. A dog's dinner *British Journal of Sexual Medicine* Vol. 26, Number 4 - 31.

ROMAIN N. BRANDT CASADEVAU/C, DIMO-SIMONIN-N Post mortem castration by a dog a case report, medical science law 2002, 42(3) 269-271.

BRIAN MC GUINNESS Calm down, dear, it's only a herb. *Prescriber*. (2005) Vol. 16,issue 9:75

DAVID HICKS. , Going nuts, *British Journal of sexual medicine* 2003 Vol.27 number 1:31.

KANG S.P. CHAKRAVARTI, A. AMERK. Help of the fire Brigade in a case of a strangulated penis. *Annals Royal Col. Surg. Engand*. (2001) 83:49.

TRENDS in *Urology Gnaecology and Sexual Health* Vol. 8, Number 4, (2003) - 3

FADIRAN O.A., LAWAL O.O., JEJE E. A., BANKOLE O. O., OYEROT., Giant Inguino Scrotal Hernia: A case report and Review of Literature. *The Central African Journal of Medicine* (1992) Vol. 38, Number, 127 - 130.

RICHARD GRANGER., NHS Connecting for Health Better Information better health *Annual Report* 2004 - 2005 - Page 3.

T. L. DENT, Framework for the future? *Surgical Endoscopy* (1997) Vol. 11, Number 10, 973 - 978

A. CUSHIERI, Day Case (ambulatory) laparoscopic surgery: Let us sing

from the same hymn sheet: *Surgical Endoscopy* (1997) Vol. 11. Number 12. 1143 - 1144.

RM. SATAVA, S.B. JONES; Smart material, devices and structures implications for surgical practice: *Surgical Endoscopy* (1996). Vol. 10. Number 9.871 - 874.

L. G. HUNTER; Clinical trials and the development of laparoscopic surgery: *Surgical Endoscopy* (2001) Vol.15. Number 1; 1 - 3.

G. BERCI. Personal Reflection - Prof. H. H. Hopking: *Surgical Endoscopy* (1995). Vol. 9. Number 6. 667 668

K. A. FORDE, Sages and Surgery: *Surgical Endoscopy* (1995) Vol.9. Number 6. 669 - 673.

O. ADEJUYIGBE, O.O. LAWAL, D.O. AKINOLA and S.O. NWOSU. Omental and Mosenteric Cysts in Nigerian Children. J. R. Coll.Surg. Edinb. 1990 Vol35, 181 184.