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Management of abdominal surgical emergencies at the Labe regional hospital (guinea)

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Abstract

Aim: Was to study the frequency and management of abdominal surgical emergencies received and treated at Labé Regional Hospital.

Patients and Methods: This was a prospective, descriptive study, lasting 6 months (April 2022 to September 2022), concerning patients admitted and operated on for abdominal surgical emergencies at the Regional Hospital of Labé, Guinea.

Results: During the 6 months, we collected 125 patients operated on for abdominal surgical emergencies, i.e. 29% of the surgical department's activities. The mean age was 31 years (extremes: 2 and 87 years); male predominance (51.2%) with a sex ratio of 1.04. Students were predominant (32.8%). The average consultation time was 5.6 days. Acute appendicitis (55.2%) was the etiology, followed by acute peritonitis (18.4%) and acute intestinal obstruction (11.2%). Surgical approaches were dominated by the McBurney incision (55.2%). Appendectomy was the most common surgical procedure (55.92%). Morbidity was 10.4%, dominated by surgical site infection (9.2%), with an overall mortality rate of 3.2%. Average hospital stay was 7.4 ± 6.9 days.

Conclusion: Surgical abdominal emergencies are frequent and predominantly affect the young population. Early management is a determining factor in post-operative outcome.

Keywords: Management, surgical emergency, abdominal, Labé

1. Introduction

Abdominal surgical emergencies are a frequent reason for admission to surgical departments. It is a real public health problem in Africa, as it mainly affects the young and active population ^[1].

In developed countries, it is promptly and adequately managed, thus ensuring a better prognosis for patients. Developing countries, on the other hand, suffer from a lack of mechanisms for the judicious management of patients, who are often admitted in a precarious clinical state ^[2]. All these factors contribute to the high morbidity and mortality in these emergencies ^[3]. The aim of this study was to report on the frequency and management of abdominal surgical emergencies received and treated at Labé Regional Hospital.

2. Patients and Methods

This was a prospective, descriptive study lasting 6 months (April 2022 to September 2022), of consecutive patients admitted and operated on for abdominal surgical emergencies at Labé Regional Hospital. The variables studied were epidemiological, clinical, therapeutic and evolutionary. Data analysis was performed using SPSS version 12.0 software. Informed patient consent, anonymity and confidentiality in data collection were respected. Qualitative data were presented in terms of frequency or percentage, while quantitative data were evaluated as averages. Difficulties encountered were linked to the reluctance of some patients to give information relating to their monthly income and the treatment they had received from traditherapists.

3. Results

Over a 6-month period, 125 patients were operated on for abdominal surgical emergencies, i.e. 29% of the activities of the general surgery department of the Labé regional hospital. Non-abdominal surgical emergencies were the most common (86.4%).

The average age of patients was 31 years, with extremes of 2 and 87 years; the 16-25 age group was the most represented (62.39%). Males predominated (51.2%), with a sex ratio of 1.04. Pupils/students were the most affected (32.8%). The average consultation time was 5.6 days, with extremes of 3 days and 60 days. Pain was the most constant subjective sign (100%), and abdominal tenderness the most frequent physical sign (21.6%). Table 1 illustrates the etiologies of abdominal surgical emergencies encountered. Surgical approaches were dominated by the McBurney incision (55.2%), followed by the xipho-pubic incision (42.4%) and the inguinal incision (3.2%). The various surgical procedures performed are shown in Table 2. Postoperative follow-up was favorable in 86.4% of cases, with 10.4% complications including surgical site infection (9.2%), evisceration (0.8%) and 3.2% deaths. The average hospital stay was 7.4±6.9 days, with extremes of 0 and 42 days.

Table 1: Etiologies of abdominal surgical emergencies

Etiologies	Number (n=125)	Percentage
Acute appendicitis	69	55,2
Acute generalized peritonitis	23	18,4
Acute intestinal obstruction	14	11,2
Abdominal contusion	08	6,4
Abdominal wound	06	4,8
Strangulated hernia	03	2,4
Meckel's diverticulum	01	0,8
Acute cholecystitis	01	0,8
Total	125	100

Table 2: Surgical procedures

Surgical procedures	Number (n=152)	Percentage
Appendectomy	85	55,92
Peritoneal cleansing+ drainage	29	19,08
Resection+intestinal anastomosis	10	6,58
Suture of ileal perforation	09	5,92
Section of flanges	09	5,92
Suture of gastric perforation	06	3,95
Herniography	03	1,97
Cholecystectomy	01	0,66

4. Discussion

Surgical abdominal emergencies occupy an important place in the surgical activity of the General Surgery Department of the Labé Regional Hospital, with a rate lower than that found by most African authors: 69.56% in the series of Camara M *et al.* [4] in Guinea in 2021 and 49.3% in the series of Kambiré JL *et al.* [5] in Burkina Faso in 2017. These data confirm the importance of these pathologies, which must therefore be managed appropriately [6]. The predominance of young age found in our series is similar to that reported by Kondano SY *et al.* [7], Camara M *et al.* [4] in Guinea and Magagi IA *et al.* [8] in Niger, who reported 31.4%, 41.5% and 22.9% of young age, respectively. This result reflects our demographics, where the age pyramid is broad. On the other hand, in the West, where the population is aging, we find higher average ages [9, 10]. The male sex was the most represented, a classic situation observed in numerous studies [6, 11-13].

The delay in seeking care found in our series has been described in the literature [4-8]. While the use of traditional treatments as a first resort to care seems to be one of the main causes of this delay, financial and geographical accessibility and cultural delay

in the decision to seek care are not negligible factors to be considered [14]. Abdominal pain was the main functional sign and reason for consultation in our context and elsewhere in the world [6-13]. Acute appendicitis was the main aetiology of abdominal surgical emergencies. This frequency was higher than the 31.95% reported by Gbessi DG *et al.* [10] in Benin in 2015, but lower than the 54.7% reported by Camara M *et al.* [4] in Guinea. The high incidence of acute appendicitis could be explained on the one hand by the fact that the diagnosis of appendicitis is clinical and does not have to wait for ultrasound, PSA or CT scan for management, and on the other hand by its misdiagnosis and the difficulties associated with its differential diagnosis, such as mesenteric adenitis, urinary tract infection (pyelonephritis and others), Meckel's diverticulum, viral hepatitis, right urethral stone, ruptured right ectopic pregnancy, right salpingitis, acute cholecystitis, acute pancreatitis [4].

The high rate of Mc Burney incision was proportional to the frequency of appendicitis in our study. Appendectomy was the most common surgical procedure, with Camara M *et al.* [4] reporting 61.3% appendectomy. This result may be justified by the fact that the most common etiology encountered was acute appendicitis and that additional appendectomies were performed for the other acute abdomens encountered during the study.

Postoperative complications were dominated by parietal suppuration. In several African studies, parietal suppuration was the main postoperative complication [4, 6, 12, 15]. We share the opinion of Kassegne I *et al.* [16] in Togo in 2015, who attribute them to the precarious state of patients and the urgent nature of management. These factors do not always guarantee rigorous asepsis, and are often accompanied by inadequate preparation (correction of hydroelectric disorders) and inappropriate antibiotic therapy. The mortality rate was close to that of Gessi DG *et al.* [12]. But it was lower than those reported in other studies, at 4.1% and 5.26% respectively [4, 6]. This mortality could be explained by the delay in admission of our patients, the inadequacy of resuscitation resources and the lack of financial means for our patients [4].

The length of hospital stay depends on the type of pathology received in the emergency department, the severity of the illness and the general condition of the patient [9].

Conclusion

Surgical abdominal emergencies are common and represent a public health problem. They mainly affect young people. Appendectomy is the most common surgical intervention. Early treatment is a determining factor in the outcome of surgery. Raising public awareness of the need for early referral to health facilities could improve the prognosis of these abdominal surgical emergencies.

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Disclosure of conflicts of interest

The authors declare that there were no conflicts of interest in the scientific writing of this work.

Declaration of informed consent

All authors appearing in this article share equally and agree to the publication of this article in your journal.

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