

Acute Surgical Abdomens at the Dioila Reference Health Center

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Abstract

Original Research Article

Objectives: To study acute surgical abdomens by describing the clinical, paraclinical and therapeutic aspects. **Methodology:** This was a retrospective descriptive study from July 2019 to June 2021 including all patients taken in the surgical unit for acute surgical abdomens. **Results:** In 24 months, we collected 117 cases of acute surgical abdomens, or 19.1% of surgical interventions. The mean age was 30.6 ± 16.95 years. The sex ratio was 1.78. The reason for consultation was abdominal pain (100% of cases). The stopping of materials and gases represented 10.3% of cases. Intraperitoneal collection was the most common ultrasound sign found in 47.1% of cases. Acute appendicitis was the most frequent intraoperative diagnosis in 60.7% of cases. The surgical procedure performed was appendectomy (71.8%). The average length of hospitalization was four days. Morbidity was 6.8%. We recorded two deaths. **Conclusion:** Acute surgical abdomens occupy an important place in surgery due to their high frequency. The care is multidisciplinary.

Keywords: Acute surgical abdomen, Pain, Morbidity, Csréf Dioila.

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INTRODUCTION

Acute surgical abdomens are abdominal conditions which, for the most part, due to lack of surgical intervention obtained without delay, cause patients to succumb within a few hours or a few days [1]. They are common in surgical settings.

The clinical appearance is most often a peritoneal or occlusive syndrome [6]. The management of acute surgical abdomens is medico-surgical and depends on the etiology. The prognosis depends on early diagnosis and management, it still remains poor according to the literature [4].

Dioila reference health center, we did not find any study on acute surgical abdomens, hence this work.

MATERIALS AND METHODS

This was a retrospective descriptive study from July 2019 to June 2021 at the DIOILA Reference Health Center. All patients admitted to the surgical unit for acute surgical abdomens were included. Not included were all patients operated on for other non-acute surgical pathologies. The parameters studied were the epidemiological aspects, the clinical, paraclinical and

therapeutic aspects. Data entry and analysis were carried out using SPSS software version 20 and Excel. The statistical comparison test used was Chi2 with a significance threshold of $p < 0.05$.

RESULTS

Over a period of 24 months, we collected 117 cases of acute surgical abdomens, representing 19.1% of surgical interventions (117/614). The mean age was 30.6 ± 16.95 years with extremes of 5 and 75 years. The male gender was in the majority in 64% of cases with a ratio of 1.78. Farmers were the most represented (37.6%). The reason for consultation was abdominal pain (100% of cases) with an average duration of 2.35 hours. The pain was located in the right iliac fossa (65%), sting type (62.4%), intense (38.5%), permanent (57.3%), associated with vomiting in 37.6% of cases as well as abdominal defense (61.5%). The stopping of materials and gases represented 10.3% of cases. Intraperitoneal collection was the most common ultrasound sign found in 47.1% of cases. Abdominal radiography without preparation (ASP), (10.3%) showed 41.7% of cases of hydro-aeric levels, 25% of pneumoperitoneum and 33.3% of grayness. Acute appendicitis was the most frequent preoperative diagnosis in 60.7% of cases followed by acute peritonitis (20.5%). Regional

anesthesia was the anesthesia of choice. The approach was the Mac Burney point in 60.7% of cases. Acute appendicitis was the most frequent intraoperative diagnosis in 60.7% followed by peritonitis (19.7%). Other intraoperative diagnoses are summarized in Table (I). The surgical procedure performed was

appendectomy (71.8%). The other surgical procedures are summarized in table (II).

All patients received analgesics and fluid infusion postoperatively. The average length of hospitalization was four days. Morbidity was 6.8% (wall infection in 6% and digestive fistula in 0.8% of cases). We recorded two deaths.

Table I: Distribution of patients according to intraoperative diagnosis

Intraoperative diagnosis	Workforce	Percentage (%)
Acute appendicitis	71	60.7
Acute peritonitis	23	19.7
Acute intestinal obstruction	10	8.5
Strangulated inguinal hernia	7	5.9
Traumatic hemoperitoneum	3	2.6
Strangulated umbilical hernia	2	1.7
Traumatic evisceration	1	0.9
Total	117	100

Table II: Distribution of patients according to the surgical procedure performed

Surgical procedure	Effective	Percentage
Appendectomy	84	71.8
Extrication + herniorrhaphy	14	12.0
Excision+suture+epiploplasty	09	7.7
Resection+anastomosis	04	3.4
Laparotomy + washing + drainage	03	2.6
Sigmoid devolvulation	01	0.8
Hemostatic compress on the liver	01	0.8
Intestinal reintegration	01	0.8

DISCUSSION

Digestive surgical emergencies concern young adults. Age is not a risk factor [8]. The average age of our patients was 30.6 years which is comparable to those of Doumbia AA [7] in 2013 and Sangaré S in 2019 [8] who found 30.1 years and 27.5 years respectively.

The male gender was the majority in our study, which is consistent with literature data [9]. Abdominal pain was the most common functional sign (100%). It was the same according to certain authors [5, 6].

Vomiting was the accompanying sign in 37.6% of cases. This rate is statistically lower than those of Sangaré S [8] in 2019 and Soumah SA [4] in 2011 which found 93.3% and 90.9% of cases respectively ($P < 0.05$). The stopping of material and gas had represented 10.3% of cases which is similar to that of Sangaré S [8] which was 5.8% but statistically lower than that of Soumah S [4]. This difference could be explained by the high number of intestinal obstructions in their study. Abdominal guarding (61.53%) was the most frequent physical sign. This frequency is comparable to that found by Fané Y [12] in 2017 in Mali.

Acute appendicitis was the most common etiology of acute surgical abdomen in our series (60.7%). This rate is similar to that of Camara M in Guinea in 2021

which found 54.68% [10] but statistically higher than that of Karim AJ in 2017 which found 43.41% ($P < 0.05$) [11]. This difference could be explained by the location of the study and the size of the sample. The second etiology of acute abdomens in our series was peritonitis (19.7%) followed by acute intestinal obstructions (8.5%) and strangulated inguinal hernia (7.7%). Camara M [10] also found peritonitis as a second cause, however, Karim AJ [11] found acute intestinal obstructions as a second cause.

During our study, ultrasound has an important place in the diagnosis of digestive surgical emergencies. It helped with the diagnosis in 34%. Therefore, the diagnosis of a surgical abdomen is primarily clinical and should not be delayed in the absence of ultrasound. Unprepared abdominal radiography (ASP) (10.3%) showed 41.7% of cases of hydro-aerial levels, 25% of cases of pneumoperitoneum and 33.3% of grayness. These results are comparable to those of Sangaré S [8].

The surgical procedure performed (appendectomy or 71.8% of cases) during our study is statistically higher than that of Samoura L [13] in 2011 who found 26.7% ($P < 0.005$). This difference could be explained by the high rate of appendicitis in our series.

The morbidity rate (6.8%) in our study is similar to those of Yacouba F and Soumah SA [4]. We

recorded two cases of death (1.7%). We did not find any significant difference between our results and those reported by Soumah SA [4] in Senegal and Fané Y in Mali [12]. Acute intestinal obstructions were the causes of death, which is similar to studies carried out by Konaté M [14] in Mali and Harouna Y [15] in Niger which reported 65% and 50% respectively.

CONCLUSION

Acute surgical abdomens occupy an important place in surgery due to their high frequency. The causes are multiple. The clinical examination is the key to diagnosis. The care is multidisciplinary.

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