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Non-traumatic abdominal surgical emergencies at the Communal Medical Center (CMC) of Matam, Conakry

Kondano Saa Yawo ¹, Fofana Naby ¹, Camara Soriba Naby ², Haba Monece ³, Soumaoro Labile Togba ^{1, *} and Diallo Biro ³

¹ Department of General Surgery, Ignace Deen National Hospital, Faculty of sciences and health technic Gamal Abdel Nasser University of Conakry, Conakry, Guinea.

² Department of Visceral Surgery, Donka National Hospital Faculty of science and health technic, Gamal Abdel Nasser University of Conakry, Conakry, Guinea.

³ Department of Visceral Surgery, Sino-guinean friendship hospital, Faculty of sciences and health technic Gamal Abdel Nasser de Conakry Guinean Friendship Hospital, Conakry, Guinea.

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Abstract

Aim: The aim of the study was to bring the frequency and management of non-traumatic abdominal surgical emergencies back to the Matam communal medical center.

Material and methods: This was a retrospective, descriptive three-year study (January 2016 to December 2018) which focused on the files of patients treated in the surgical department of the surgical medical center (CMC). By Matam, for a non-traumatic abdominal surgical emergency.

Results: Non-traumatic abdominal surgical emergencies represented 49.98% compared to surgical pathologies. The average age was 31.36% with extremes of 10 and 75 years. A male predominance was noted with a sex ratio = 1.07. The average consultation time was 5.53 days. Abdominal pain was the main reason for consultation. Acute appendicitis and strangulated hernias were the most common and ultrasound was performed in 21 patients (5.05%) and unprepared abdominal x-ray was performed in 49 patients (11.89%). All cases were operated on urgently. The operative consequences were simple in 94.42%. We noted parietal suppurations in 2.18%, postoperative peritonitis in 2.43% of cases and 9 deaths. The mean hospital stay was 7.14 days.

Conclusion: non-traumatic abdominal emergencies constitute a public health problem, the prognosis depends on the quality and the precocity of the patient's care.

Keywords: Non traumatic; Abdominal; Surgical; Emergencies

1. Introduction

Non-traumatic abdominal surgical emergencies occupy an important place in the activity of emergency surgical departments [1]. Sectional imaging techniques have made it possible to completely change the diagnostic approach for acute abdomens, allowing precise diagnosis and highlighting previously little known conditions [2]. Management is a daily concern in surgical departments around the world and more particularly in sub-Saharan Africa [3]. The low family

* Corresponding author: Camara Soriba Naby

Department of Visceral Surgery, Sino-Faculty of sciences and health technic Gamal Abdel Nasser de Conakry Guinean Friendship Hospital, Conakry, Guinea.

income, insufficient technical facilities, the poor general condition of the patient and the delay in treatment are negative factors for the prognosis [3].

The aim of the study was to report the frequency and management of non-traumatic abdominal surgical emergencies.

2. Patients and methods

This was a retrospective, descriptive three-year study (January 2016 to December 2018) carried out in the general surgery department of the Municipal Medical Center (CMC) of Matam. The files of patients operated on for a non-traumatic abdominal surgical emergency were included. The variables studied were socio-demographic, clinical and therapeutic.

3. Results

Non-traumatic abdominal surgical emergencies represented 49.98% compared to surgical pathologies. The mean age of the patients was 31.36 years with extremes of 10 and 75 years the age group of 20 to 39 years was the most represented 53.88%. A male predominance was noted (53%). The average consultation time was 5.53 days. The clinical signs are grouped together in Table 1 and Table 2 illustrates the aetiologies encountered.

Ultrasound was performed in 21 patients (5.05%) of which 10 patients (2.43%) presented with peritoneal effusion. The unprepared abdominal x-ray performed in 49 patients (11.89%) which revealed hydro-aeric levels (2.43%), pneumoperitoneum (5.58%) and diffuse grayness (1, 22%). The hemoglobin level was less than 10g / l in 261 cases (63.35%), there were 152 cases (48.71%) of hyperleukocytosis and 55 patients (15.92%) cases of blood sugar greater than 5, 55mmol / l, HIV serology was positive in 13 cases (3.17%).

Table 1 Distribution of patient according to the frequency of sign

Sign	Number(142)	Proportion
functional sign		
Abdominal pain	412	100
Vomiting	314	70.21
Constipation	135	22.77
Nausea	114	7.67
Stopping of materials and gases	32	3.77
Feeling of heaviness	41	2.51
General sign		
Fever	149	36.16
Physical asthenia	35	8.50
Weight loss	32	7.77
Physical sign		
Blumberg positive	237	57.52
Contracture / abdominal	39	9.47
Abdominal meteorism	32	7.77
Inguinal swelling	101	24.51
White line swelling	10	2.43

Local anesthesia was performed in 29.61% of patients and 70.31% of general anesthesia cases. The various actions performed are grouped together in Table 3. The postoperative consequences were simple in 94.42% of cases and

complicated by wall suppurations in 2.18% and postoperative peritonitis in 2.43% of cases. The mean length of hospital stay was 7.14 days. We recorded 4 deaths.

Table 2 Distribution of patient according to the surgical procedure

Surgical procedures	Nombre (N=412)	Percentage
Appendectomy	245	50.46
Peritoneal toilet + drainage	45	10.92
Herniorrhaphy	122	27.61
Intestinal and gastric perforation suture	24	5.83
Bowel resection anastomosis	21	5.10

Table 3 Distribution of patient according to the etiology

Etiology	Number	Proportion
Appendicitis's	224	54.37
Strangulated hernias	122	29.61
PAG*	38	9.24
OIA**	28	6.80
Total	412	100

*PAG acute generalized peritonitis; ** OIA: acute bowel obstruction

4. Discussion

The frequency of abdominal surgical emergencies reported in our series is lower than that found by most African authors: 22% in the series of Adama H et al [4] in Niger in 2015 and 25.6% in the series of Harouna Y et al [5]. These data demonstrate the importance of non-traumatic abdominal surgical emergencies in surgical settings in our hospitals.

The mean age observed in our series was superimposable on that of Rasamoelina N et al [6] who found 31.25 years which confirms overall that non-traumatic abdominal surgical emergencies concern young subjects in full vital activity [5]. We noted a predominance of the male sex, our results are similar to that of Sima a et al [7] and that of Maiga AA et al [8] who found respectively 54.44% and 64.30% in favor of sex male. The young population, mainly male, is a characteristic found in the African series [7, 8], this is a reflection of our demography where the age pyramid is broad based. Abdominal pain was the most consistent reason for consultation. This observation was noted by Mabilia Babela J.R et al [9], Harouna Y et al [10] in Niger and Ngowé M et al [11] in Cameroon. The acute nature of non-traumatic abdominal surgical emergencies could explain the predominance of abdominal pain in these pathologies.

The average consultation time was 5.53 days with extremes of 3 days and 60 days this time varies according to the authors, they were 49 hours according to Harouna Y et al [10] and 3 days according to Ngowé M et al [11] in Cameroon. This proves the importance of the admission delay in assessing the patient's vital prognosis after surgery.

Imaging in our setting was dominated by the unprepared abdominal x-ray and ultrasound.

In all cases, acute appendicitis always occupied the first place, the other pathologies encountered depend on the socio-demographic conditions and the level of development of the different countries [2].

The postoperative effects were simple in 94.4% of cases and complicated in 4.41% of cases. Mabilia Babela et al [9] noted 82.40% of simple operative consequences and 17.6% of complicated consequences. We recorded 0.97% of deaths on the contrary Mabilia Babela et al recorded 4.3% of deaths. Our low death rate is due to the types of emergencies that were represented in the majority by appendicitis and strangulated hernias. The length of hospital stay depends on the type of pathology received urgently, the severity of the disease and the general condition of the patient. This average duration reported in our series was lower than those of Ahmed A et al [12] in Niger in 2011 who noted an average hospital stay of 13.2 days, while, Magagi LA et al [13] in Niger in 2016 found an average length of stay of 9 days with extremes of 1 to 35 days. The occurrence of complications increases the cost of treatment and lengthens the hospital stay.

5. Conclusion

Non-traumatic abdominal surgical emergencies are frequent and constitute a public health problem. The success of the treatment depends on a frank multidisciplinary collaboration involving different specialists in imaging, biology, resuscitation and surgery.

Compliance with ethical standards

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Disclosure of conflict of interest

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

Statement of informed consent

All of the authors who appear in this article have an equal share of and agree to the publication of this article in your journal.

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