Saudi Journal of Medicine

Abbreviated Key Title: Saudi J Med ISSN 2518-3389 (Print) | ISSN 2518-3397 (Online) Scholars Middle East Publishers, Dubai, United Arab Emirates Journal homepage: <u>https://saudijournals.com</u>

Original Research Article

Acute Appendicitis at the Markala's Reference Health Center about One Hundred and Three Cases

Kanthé D^{1*}, Koné O¹, Fomba D¹, Dembélé BT², Samaké Y³, Kéita M⁴, Samaké B⁴, Bagayoko TB⁴, Koné O⁵, Togo AP²

¹Markala Reference Health Center, Bamako, Mali

²Surgery department of Gabriel Touré University Hospital Center, Bamako, Mali

³Fana Reference Health Center, Bamako, Mali

⁴Nianankoro Fomba Hospital in Ségou, Bamako, Mali

⁵National Institute of Public Health, Bamako, Mali

DOI: 10.36348/sjm.2023.v08i05.009

| Received: 07.04.2023 | Accepted: 11.05.2023 | Published: 16.05.2023

*Corresponding Author: Dr Djibrilla KANTHE Markala Reference Health Center, Bamako, Mali

Abstract

The aim is to study acute appendicitis in the surgery department of the Markala Reference Health Center. Patients and Methods: We conducted a retrospective study in the general surgery department of the reference health center which took place over a period of 35 months from October 1, 2019 to October 30, 2021. The retrospective period was from the month of October 2019 in October 2020 then follows the prospective period until October 2021. Inclusion criteria: Were included in our study; all patients with appendicitis or its complicated forms in the general surgery department of the Csréf in Markala. Non-inclusion criteria: Were not included in our study; cases of appendicitis outside the general surgery department of the Csréf. -Appendicitis accounted for 58.2% of hospitalizations or 31% of emergency surgeries performed during the study period. 85.4% of the patients were without medical-surgical ATCD, on the other hand the oldest of our patients was 61 years old; the average age was 29 years old and the youngest was 13 years old. Furthermore, we note that there was no age of onset of appendicitis. The treatment received by all of our patients was appendectomy (93 cases were operated on urgently and the 10 cases were first cooled and then operated on 3 months after the medical treatment). No major complication was noted in our patients, apart from three cases of infection of the surgical site related to the fact that it was an appendicular abscess. Conclusion: Acute appendicitis is one of the most common surgical emergencies in digestive surgery. Its diagnosis is essentially clinical, sometimes made difficult by the absence of anatomo-clinical parallelism linked to the polymorphism of the lesions and the variations in the position of the organ in the abdominal cavity. Untreated, it can progress to serious complications (generalized peritonitis). It is a condition with low morbidity and mortality subject to early diagnosis and surgical treatment.

Keywords: Acute appendicitis, surgery department, Reference Health Center by MARKALA.

Copyright © 2023 The Author(s): This is an open-access article distributed under the terms of the Creative Commons Attribution 4.0 International License (CC BY-NC 4.0) which permits unrestricted use, distribution, and reproduction in any medium for non-commercial use provided the original author and source are credited.

INTRODUCTION

Acute appendicitis is an acute inflammation of the vermiform appendix [1]. It is one of the most frequent abdominal surgical emergencies in the world. Only an early diagnosis can guarantee the benignity of this condition [2]. The appendix is the most operated organ in digestive surgery [3].

The annual incidence of appendicitis is located in France between 40 and 60 per 10,000 inhabitants [1]. This figure is much higher than in other European or North American countries where it is between 11 and 18 per 10,000 inhabitants [1].

In fact, the incidence of appendicitis is lower than appendectomies. Indeed, in 15 to 45% of cases or sometimes more; no true histological lesions of acute appendicitis are found during the anatomopathological examination of the operating parts [4].

In DAKAR; it would represent 33% of surgical emergencies [5]. In Mali, acute appendicitis accounted for 9% of consultations at the general surgery department of Gabriel Touré Hospital in 2002 [6]. Appendicitis can occur at any age of life but rare in children under 3 years of age.His diagnosis is clinical but can benefit from the contribution of imaging. The first means of imaging is first-line ultrasound [7]. The main complication is the occurrence of acute peritonitis by appendicular perforation [4]. The treatment is surgical by laparotomy or by laparoscopy. Its prognosis is usually favorable but it can be grafted with numerous complications if the treatment is not done as soon as possible, hence the interest of early diagnosis of this condition [7,8].

Several studies have been carried out worldwide on acute appendicitis; particularly in Mali but no study was first done on this condition in the general surgery department of the reference Health center of Markala; hence the initiative of this work to make our contribution.

MATERIALS AND METHODS

We conducted a 35-month retrospective study from October 2019 to October 20121 with a retrospective period spanning from October 2019 to October 2021 and a prospective period running until October 2021 in the general surgery department of the Markala Referral Health Center.

Inclusion criteria

All patients who had appendicitis or its complicated forms in the general surgery department of the CSRef of Markala were included.

Non-inclusion criteria

Cases of appendicitis outside the general surgery department of the CSRef of Markala were not included.

Diagnostic criteria

In the absence of an anatomopathology department, we have set ourselves the criteria for diagnosing acute appendicitis recorded in the ALVARADO score [17].

RESULTS

From October 1, 2019 to October 30, 2021, we collected one hundred and three cases of Acute Appendicitis. The average age of our patients was 29 years old with extremes ranging from 13 to 61ans.La the age group 16-30 years was the most represented, i.e. 54.4%. The standard deviation was 12.38.

Table 1: Distribution of patients by age group				
Age	Effective	Percent		
0-15	10	9,7		
16-30	56	54,4		
31-45	22	21,4		
46-60	15	14,6		
Total	103	100		



Figure 1: Distribution of patients by sex

Table 2. Distribution of patients by reason of consultation					
Reason of consultation	Effective	Percent			
Douleur	98	98,98			
Fever	3	3			
Vomiting	1	1			
Pain and fever	1	1			
Total	103	100			

Table 3: Distribution of patients according to the mode of treatment						
Mode of treatment	Effective	Percent				
Surgical	87	84,5				
Médical and Surgical	16	15,5				
Total	103	100				

Table 4: Distribution of patients by hospitalization stay					
Stay of hospitalization (days)	Effective	Percent			
3	55	53,4			
4	33	32			
4days and more	15	14,6			
Total	103	100			

The average length of hospitalization was 3.75 days with extremes of 2 and 15 days.

COMMENTS AND DISCUSSION

Our study was carried out at the Markala reference health center in the General surgery department. We collected 103 cases of appendicitis over a period of 35 months. We participated ourselves in the collection of 39 cases during the prospective phase.

During this study, we were faced with the following difficulties :

- The absence of the anatomy-pathology department for the confirmation of the diagnosis;
- Taking painkillers and antibiotics before admission made the diagnosis difficult;
- Insufficient financial resources made it difficult to take care of some patients quickly;

Acute appendicitis is the first cause of acute abdomen [12]. We have identified 103 cases representing the frequency of 30%. This rate is lower than those found by: ZOGUEREH (Central African Republic [17]), COULIBALY M (MALI). This difference could be explained through recruitment.

In the other series studied and that of ours, appendicitis occupies the first rank of surgical emergencies. Acute appendicitis is more frequently found in young subjects [5].In our study, the average age was 29 years old (extreme ages: 13 and 61 years old) which is higher than those found by COULIBALY M [3] .This could be explained by a late consultation.

According to the literature [15], three physical signs are essential for the diagnosis of appendicitis: the pain caused in the FID, the defense in the FID and the pain in the TP. Blumberg's sign and pelvic touch pain were the main physical signs in all series. The average length of hospitalization of our patients of 3.75 days corresponds perfectly with those obtained by the other authors studied as in the CENTRAL African REPUBLIC [17] with 7.6 days.

Conflict of interest: None

REFERENCES

- Chipponi, J. (2000). Complementary examinations in acute appendicitis, *Practitioner's Review*, 42, 689-692.
- Abid, L. (2002). Pain syndrome of the right iliac fossa and appendicitis, Reflections about 800 appendectomies. www Sant Maghreb /Algeria.
- Coulibaly, M. (2002). Acute appendicitis in the general and pediatric surgery department of Gabriel Touré Hospital. *Thesis Med. Bamako* N°44
- 4. Keita, M.B. (2002). Acute appendicitis at the CSRef of commune IV.These med, Bamako.
- Traore, D.A. (2008). Acute appendicitis in children in the general surgery department at the Gabriel Touré University Hospital. PhD thesis, Bamako.
- Bjerkeset, T., Havik, S., Aune, K. E., & Rosseland, A. (2006). Acute abdominal pain as cause of hospitalisation. *Tidsskrift for den Norske laegeforening: tidsskrift for praktisk medicin, ny raekke*, 126(12), 1602-1604.
- 7. Taourel, P. (2001). Exploration of the appendix by imaging: *The end of certainties Radiol*, 82, 443-4.
- 8. Mike, D. (2000). Acute appendicitis: review and update. *Am-fam-physical.*, *60*, 2027.
- Pittman-Waller, V. A., Myers, J. G., Stewart, R. M., Dent, D. L., Page, C. P., Gray, G. A., ... & Root, H. D. (2000). Appendicitis: why so complicated? Analysis of 5755 consecutive appendectomies. *The American surgeon*, 66(6), 548-554.
- 10. Mutter, D., Mariscaux, J. (2002). Acute Appendicitis Item 224-Module 14-2002.
- Harouna, Y., Amadou, S., Gazi, M., Gamatie, Y., Abdou, I., Omar, G. S., ... & Boureima, M. (2000). Appendicitis in Niger: current prognosis. *Bulletin de la Societe de Pathologie Exotique (1990)*, 93(5), 314-316.
- Bore, D. (2006). Study of acute Peritonitis at the Sominé Dolo Hospital in Mopti PhD Thesis. Bamako. n°366
- 13. Cady, J., And Kron, B. (2001). Anatomy of the human body. 6th edition
- 14. Maiga, I. E. (2009). Acute appendicitis the Nianankoro Fomba Hospital in Ségou. Thesis med,Bamako.

- 15. Mehinto, D.K.I. (2004). Complications of appendectomy for acute appendicitis in adults at the National Hospital and University Center (CNHU) in Cotonou. *Med of North Africa*, 51(6), 361-365.
- Samuel, M., Hosie, G., & Holmes, K. (2002). Prospective evaluation of nonsurgical versus surgical management of appendiceal mass. *Journal* of pediatric surgery, 37(6), 882-886.
- Zoguéreh, D. D., Lemaître, X., Ikoli, J. F., Delmont, J., Chamlian, A., Mandaba, J. L., & Nali, N. M. (2001). Acute appendicitis at the National University Hospital in Bangui (Central African Republic): epidemiological, clinical, paraclinical and therapeutic aspects. *Cahiers d'études et de recherches francophones/Santé*, 11(2), 117-25.