



## Case report

### **An unusual presentation of appendicitis: a 23 cm long appendix in Morocco**

**Hicham Laraqui<sup>1,&</sup>, Mohamed Lamgari<sup>2</sup>, Mohamed Essarghini<sup>2</sup>, Aziz Zentar<sup>2</sup>**

<sup>1</sup>Department of General Surgery, Military Hospital Rabat, Faculty of Medicine, Fes, Morocco, <sup>2</sup>Department of General Surgery, Military Hospital, Faculty of Medicine, Mohamed V University, Rabat, Morocco

<sup>&</sup>Corresponding author: Hicham Laraqui, Department of General Surgery, Military Hospital, Faculty of Medicine, Mohamed V University, Rabat, Morocco

Key words: Appendix, acute inflammation, long

Received: 12/01/2019 - Accepted: 19/01/2019 - Published: 12/02/2019

#### **Abstract**

The appendix is a diverticulum attached to the caecum. It can have variable lengths and locations. Acute inflammation from long appendix is a diagnostic challenge with unusual signs and symptoms. A 35 years old man admitted to the emergency department for an acute abdominal pain with low-grade fever which had been present for 03 days. The abdomen Ultrasound showed minimal effusion in the right iliac fossa. He underwent an appendicectomy which revealed a very long appendix (23 cm in length) with tip reaching the sub hepatic area. The surgeon must kip in mind all anatomical variations of the appendix for making diagnosis and decisison to operate acute appendicitis because the increasing risk of morbidity.

**Pan African Medical Journal. 2019;32:72. doi:10.11604/pamj.2019.32.72.18151**

This article is available online at: <http://www.panafrican-med-journal.com/content/article/32/72/full/>

© Hicham Laraqui et al. The Pan African Medical Journal - ISSN 1937-8688. This is an Open Access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/2.0>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

## Introduction

---

The appendix is usually 6-9 cm long but different length has been reported from 1 cm to 30 cm [1]. Acute appendicitis is the most common disease of the appendix and appendectomy is a very frequent operation performed in emergency. Acute appendicitis from long appendix may present with unusual symptoms and atypical clinical presentation making the diagnosis very difficult.

## Patient and observation

---

35 years old man admitted to the emergency department for an acute abdominal pain with low-grade fever which had been present for 03 days. The patient presented nausea, vomits and loss of appetite. Physical exam showed a deep tenderness in the right iliac fossa. Blood test showed total leucocytes count of 12000/mm<sup>3</sup> with neutrophil count of 68%. Others blood tests were normal. The abdomen Ultrasound showed minimal effusion in the right iliac fossa. The computed tomography (CT) scan was normal. The diagnosis of acute appendicitis was made indicated an appendectomy. A largest Mac Burney incision was made. The appendix was inflamed with retro-cecal position. It was very long and the tip reached the sub hepatic area. The appendix measured 23 cm in length (Figure 1). The appendectomy was made. The pathological exam found a long appendix (20 cm after formalin fixation) (Figure 2) with ulcerative meso and lumen. The pathological report confirmed an acute appendicitis without signs of malignancy. The postoperative course was uncomplicated. The patient left hospital on post-operative day 3.

## Discussion

---

The appendix is a diverticulum arising from the inferior tip of the caecum; its length is 6-9 cm in adults [1]. There are a considerably variations in length and position (free tip) that can give clinical and radiological misdiagnosing. The appendix free tip may be retrocaecal, pelvic, paracolic, rarely pre, post-ileal, or sub hepatic [2, 3]. Very rarely, the appendix may occupy a left position of the abdomen in situs inversus. The length may vary between 2 cm to 30 cm [4]. The longest appendix reported in Guinness World Records measured 26 cm removed from 72 years old during an autopsy in

Croatia [5]. Some author's found that the appendix length is highly correlated with body weight [6]. Our patient had an unusually long appendix of 23 cm, making it longest reported in Morocco (Base PubMed and Medline). When inflamed, longest appendices produce confusing picture making the difficulty for diagnosis. It may simulate inflammation of other structures such as enteritis, salpingitis, scrotal pain and endometriosis [7]. Sub hepatic appendix can mimic cholecystitis and perforation of sub hepatic appendix can mimic liver abscess [8, 9]. These symptoms make difficulty for the diagnosis. In our case, even the appendix tip reached the sub hepatic area; the pain and tenderness were in the right iliac fossa because the inflammation was located in the appendix base. Computed tomography scan with inflammatory markers and leukocytosis can help diagnosis for acute appendicitis in atypical cases [10].

## Conclusion

---

Long acute appendicitis is unusual making a misdiagnosis with others inflammatory diseases. the surgeon must keep in mind all anatomical variations of the appendix for making diagnosis and the decision to operate because the increasing risk of perforation and morbidity in neglected appendicitis. Therefore, a high index of suspicion and good clinical sense are needed to make a diagnosis of acute appendicitis in atypical cases.

## Competing interests

---

The authors declare no competing interests.

## Authors' contributions

---

Laraqui Hicham: literature research, manuscript draft; Amine Lamghari: figures made; Aziz Zentar: supervisor. All authors read and approved the final manuscript.

## Figures

---

**Figure 1:** The long appendix after dissection

**Figure 2:** The long appendix after dissection and formalin fixation

## References

---

1. Rothrock S, Pagane J. Acute appendicitis in children: emergency department diagnosis and management. *Annals of emergency medicine*. 2000; 36(1): 39-51. **PubMed | Google Scholar**
2. Rais AM, Shabeer HM, Imza F, Mir Y, Khalil MB, Khurseed A. An unusual case report: longest appendix in India (20.5 cm). *Oncol Gastroenterol, Hepatol*. 2013; 2(1): 45-47. **Google Scholar**
3. Ajmani ML, Ajmani K. The position, length and arterial supply of vermiform appendix. *Anat Anz*. 1983; 153(4): 369. **PubMed | Google Scholar**
4. Collins DC. 71,000, Human appendix specimens: anal report summarizing forty years study. *Am J Proctol*. 1963; 14: 365-81. **PubMed | Google Scholar**
5. Guinness world records. Guinness world record for longest appendix removed. Accessed October 3 2011.
6. Raschka S, Raschka C. On the relationship between body dimensions and appendix length. *Anthropol Anz*. 2008; 66(1): 67-72. **PubMed | Google Scholar**
7. Boddeti RK, Kulkarni R, Murudkar PKH. Unique 28 cm Long Vermiform Appendix. *Int J Anat Res*. 2013; 02: 111-114. **Google Scholar**
8. Alzaraa A, Chaudhry S. An unusually long appendix in a child: a case report. *Cases Journal*. 2009; 2: 7398. **PubMed | Google Scholar**
9. Palanivelu C, Rangarajan M, John SJ, Senthilkumar R, Madhankumar M. Laparoscopic appendicectomy for appendicitis in uncommon situations: the advantages of a tailored approach. *Singapore Med J*. 2007; 48(8): 737-40. **PubMed | Google Scholar**
10. Shukla A, Bhar R, Chaudhary R, Sharma M. Diagnostic value of Plain Abdominal Radiograph, Ultrasonography and Clinical impression of the surgeon in acute peritonitis. *Ann of Int Med & Den Res*. 2015; 1(2): 66-71. **Google Scholar**



**Figure 1:** The long appendix after dissection



**Figure 2:** The long appendix after dissection and formalin fixation