Acute Appendicits: Still a Missed Diagnosis in El Obeid, Western Sudan

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Abstract

Patients and Methods: One hundred and one patients with appendicitis were admitted to the emergency wards of the University Surgical Unit in El Obeid Teaching Hospital, Western Sudan during the period from July 2005 to June 2006. There were 64 males and 37 females.

Results: The mean age was 20.8 years ± S.D. 12.8. 34 patients had appendicular mass, four patients had appendicular abscess and five patients had generalized peritonitis presenting with acute abdomen. Out of the 58 patients admitted as acute appendicitis, 15 patients were found to have perforated appendices at operation and the rest inflamed oedematous appendices, with a negative appendicectomy rate of zero per cent.

Conclusion: These findings reflect the poor awareness about acute appendicitis and its seriousness in this area. It is the problem of late diagnosis rather than late presentation as all patients were misdiagnosed and put under treatment for other medical conditions before being admitted to the surgical wards.

Key words: Acute appendicitis, missed diagnosis, Western Sudan.

Introduction

Appendicitis is the inflammation of the appendix. The inflamed appendix if not treated can burst causing local and/or generalized peritonitis, septicaemia or death. The first patient to survive appendicectomy was described by Claudius Amyand in 1736. The term appendicitis was suggested in 1886[1].

Burkett more than 40 years ago, stated that the epidemic of appendicitis is the result of dietary change, i.e. decreased fibres and increased refined food[1]. The disease, which was thought to be a Western entity, became ubiquitous all over the world[2]. Patients with unrecognized appendicitis, leading to life threatening complications were reported from the Sudan and else where in the region[3-6].

In this study we report our local experience in El Obeid Teaching Hospital, Western Sudan where the society is developing fast and social habits including diet are changing towards modernization.

Patients and Methods

The study population consisted of 104 patients, admitted to the wards of the University Surgical Unit in El Obeid Teaching Hospital during the period from July 2005 to June 2006.

The data was retrieved from the patients' files. The files of three patients were deficient so they were excluded. The records of the remaining 101 patients were retrospectively analyzed using the SPSS computer package system.

Results

Among the 101 patients, there were 64 males and 37 females. The mean age was 20.83 years ± S.D. 12.83.

The clinical diagnosis on admission is shown on table 1. All patients had some sort of medical treatment before admission, 72 had anti-malarial drugs, 14 had anti-amoebiasis, eight treated for colitis and the rest were treated for pelvic inflammatory disease and urinary tract infection. Nearly 34% of the patients were diagnosed as appendicular mass, they were treated conservatively and offered elective appendicectomy later. Four patients were diagnosed to have appendicular abscesses and another five had acute abdomen with generalized peritonitis. Laparotomies were done for all nine patients (8.8%) where drainage of the local or generalized abscess was done and the appendices were removed.

Table1: Clinical diagnosis on admission. N=101 patients

	Males	Females
Acute appendicitis	34	24
Appendicular mass	25	09
Appendicular abscess	03	01
Acute abdomen	02	03
Total	64	37

Discussion

Acute appendicitis is a common surgical emergency, world wide[2]. It is estimated that about 10% of the population will develop acute appendicitis[7, 8]. Appendicitis is the commonest

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condition requiring emergency operation among the African children[2]. In Sudan, previous published reports indicated that the condition is common and that delayed diagnosis was associated with increased morbidity and mortality[3, 4]. Reports from this hospital emphasized a similar pattern more than a decade ago. Despite being a common disease all our patients were misdiagnosed and treated initially for other pathology. Similar lack of awareness and diagnostic failure in African society was reported before[2, 9].

In this study, the number of patients analyzed accounted for all cases diagnosed as appendicitis found among the emergency surgical admissions in this hospital during the period from July 2005 to June 2006 indicating a case of appendicitis is probably seen every 3-4 days.

The age distribution in this series was in line with other reports[3, 10], showing a peak frequency around the end of the 2nd decade and the beginning of the 3rd decade of life (20±12 years). The gender pattern with M: F ratio of 1.7: 1 is also similar to the findings in other studies[3, 9].

Out of the 58 patients who were admitted with the clinical diagnosis of acute appendicitis 15 patients were found to have perforated appendices at operation. The remaining 43 cases were described to have oedematous inflamed appendices i.e. with a negative appendicectomy rate of zero per cent. This is not keeping with reports from the literature[11-13]. Word wide, 15-30% of laparotomies for suspected appendicitis yielded negative findings[14].

There was no mortality among the study group, but 11 patients (10.9%) had wound infection with prolonged hospital stay and two patients (1.9%) were re-admitted with adhesive intestinal obstruction which was managed conservatively. This is consistent with other's findings[11, 15].

The overall number of complicated appendicitis in this study was 58 patients (57.4%).

Conclusion

The findings in this study reflected the poor awareness of acute appendicitis and its seriousness in spite of its common frequency in this area. Our big problem is the late diagnosis rather than late presentation.

References

1. Al-Falougi MAR and Mc Brien MP. Postgraduate Surgery. Heinemann Medical Books. 1988. P. 372.
2. Ndungu J.M. Appendicitis in African children. E Afr Med J 1994; 71: 277-278.
3. Ahmed M.E. Acute appendicitis in Khartoum: Pattern and clinical presentation. E Afr Med J 1987; 64:202-06.
4. Ahmed M.E. Acute abdomen in Khartoum. E Afr Med .J 63:7; 458-62.1986.
5. Ellis H. Appendicitis. Postgraduate Doctor- Africa 1988; 10; 122-27.
6. Daniel E, Mersha D. Childhood appendicitis: factors associated with its incidence and perforation in Ethiopian children. Ethiop Med J 1991; 29(1): 15-19.
7. Bansley SW. Can we improve diagnosis of acute appendicitis? BMJ 2000; 321: 907-908.
8. Benjamin IS, Patel AG. Managing acute appendicitis. BMJ 2002; 325: 505-506.
9. Nmadu P.T., Dawam D. Childhood appendicitis in Zaria: A retrospective study. E Afr Med J 1993; 70: 240-42.
10. Kakande I. and Nehra M.K. Appendicectomy in Consolata Hospital, Nyeri: Analysis of operative and histological findings. E Afr Med J 1990; 67: 573-76.
11. Pieper R, Kager L, Nasman P. Acute appendicitis: A clinical study of 1018 cases of emergency appendicectomy. Acta Chir Scand 1982; 148: 51-62.
12. Chan MY, Teo BS, Ng BL. The Alvarado score and acute appendicitis. Ann Acad Med Singapore 2001; 30: 510-512.
13. Douglas CD, Macpherson NE, Davidson PM, et al. Randomised controlled trial of ultrasongraphy in diagnosis of acute appendicitis, incorporating the Alvarado score. BMJ 2000; 321: 919-922.
14. Bonn,D. Rapid diagnosis of equivocal appendicitis. Molecular Medicine Today 1998. 367.
15. O'Connell NS. The vermiform appendix. Bailey's & Love's Short Practice of Surgery. Hodder Arnold 2004; 24th edition p. 1216.