Acute appendicitis presenting as urinary retention: A note of caution

Sir,

Acute appendicitis is an extremely common surgical encounter.[1,2] The diagnosis is essentially clinical, however the various positions which the human appendix takes (75% retrocolic and retrocecal, 20% subcecal and pelvic, 5% retro-ileal and pre-ileal) may considerably vary the clinical picture. This communication reports, acute appendicitis presenting as acute urinary retention in a young male who has never had any past urinary complaints. A 26-year-old Pakistani male presented to the Emergency Department at Al-Hammadi Hospital in Riyadh, Kingdom of Saudi Arabia (KSA) with a 2-hour history of sudden onset acute urinary retention preceeded by 24 hours of progressively feeling unwell and slightly nauseous. His past medical history was unremarkable and he has had no genito-urinary complaints. On examination, he was distressed, slightly dehydrated and had a rapid regular pulse rate (98/minute). His blood pressure was 150/90 and the temperature 36.9^{0}C. On abdominal examination, the bladder was found to be hugely distended reaching the umbilicus and tender. The genitalia exhibited no abnormality and no discharge was recovered from the penis. He was catheterized and one thousand mls of urine were recovered. Thereafter, examination of the prostate revealed no abnormality. Laboratory investigations reported a white blood cell (WBC) of 15x10^{9} with a 78.9% neutrophil count, a blood urea of 8 mg/dl and a lactate dehydrogenase level of 127 U/L. All other hematological and biochemical readings were within normal values. A catheter sample of urine had a specific gravity of 1.01 with a pH value of 5.5, occult blood +2, red blood cell (RBC) 8-10/high power field (HPF), WBC 1-2/HPF, and few mucus cells. Urine culture yielded no growth. Erect abdominal x-ray followed by ultrasonic assessment of the abdomen reported no abnormality of clinical significance. At this stage a general surgical opinion was requested. At abdominal examination, lower right iliac fossa tenderness with guarding and minimal rebound tenderness was noted suggesting the peritonism to be appendicitis related. The patient was admitted to the Department of Surgery and kept on nil by mouth and rehydrated using intravenous crystalloid fluid replacement over 2 hours, a written informed consent was obtained and he was then taken to theatre. At induction of general anesthesia, one gram of Imipenem and 160 mg of gentamycin were administered intravenously. A right lower paramedian incision was carried out. A long pelvic acutely inflamed appendix having an aberrant mesoappendix arising from the small bowel mesentery at the iliocecal junction, with a fecolith obstructing its base and its tip lying over the bladder vault was removed. No other pathology was noted. Histopathological examination confirmed the obstructing acute appendicitis to be suppurative extending beyond the serosa. The indwelling urinary catheter was removed in the recovery room. The patient made an uneventful recovery and was able to pass urine comfortably during the first 24 hours postoperatively. He was discharged home in a good condition on the 4th post-operative day. Review at the surgical outpatient department was carried out one and 3 weeks after discharge from the hospital. The wound made a clean sound healing and no urinary complaints were noted. The patient was reassured and discharged from further surgical care.

Acute appendicitis may mimic in its clinical presentation a variety of disorders such as: acute non-specific mesenteric lymphadenitis, perforated peptic ulceration, acute Meckelian diverticulitis, torsion of an appendix epiploica, solitary diverticulum of the cecum, Crohn's ileitis, Yersinia ileocolitis, segmental infarction of the omentum, sigmoid diverticulitis, non-specific inflammatory disease of the colon, rupture of an ovarian lutein cyst, torsion of the testis, renal colic, and so forth. While these conditions do not call for urgent surgery, acute appendicitis has a lethal potential introduced by perforation of an acutely inflamed obstructed appendix into a relatively unprepared peritoneal cavity.[1,2] Urinary symptoms can be produced by an acutely inflamed appendix lying over the ureter or bladder where pyuria or hematuria may be encountered. This communication introduces the surprising observation of acute urinary retention reflecting acute appendicitis as the sole clinical symptom and in the absence of any abdominal complaints. A note of caution is thus urged. While acute urinary retention in men defined as the total inability to void[3,4] is thought of as an associate of lower urinary tract pathologies and in particular prostatic disorders, it is prudent to remember the reflex inhibition produced by sepsis. Within this context, omission of the implications of the inflammatory process associated with acute appendicitis may carry grave consequences. Conversely, keeping the issue in mind enhances the diagnostic acumen and contributes to a lower morbidity and mortality.

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References

1. Dudley HAF. Acute Appendicitis. In: Hamilton Bailey's Emergency Surgery. HAF Dudley, editor. Bristol (UK): Wright; 1986. p. 336–345.
2. Ellis H. The Appendix and colon. In: Operative Surgery and Management. Keen G, editor. Bristol (UK): Wright; 1987; p. 215–220.
3. Jacobsen SJ, Jacobsen DJ, Girman CJ, Roberts RO, Rhodes T, Guess HA, et al. Natural history of prostatism: risk factors for acute urinary retention. *J Urol* 1997; 158: 481–487.
4. Roehrborn CG, Bruskewitz R, Nickel GC, Glickman S, Cox C, Anderson R, et al. Urinary retention in patients with BPH treated with Finasteride or placebo over 4 years. *Eur Urol* 2000; 37: 528–536.