

Pubic osteitis following pubic adenomectomy: Case report

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Abstract

Osteitis pubis is a condition that mainly affects young people.

It rarely occurs after urological surgery. It is a diagnostic and therapeutic emergency.

Diagnosis is based on clinical findings, which vary widely from simple pelvic tenderness to pain that limits walking. Imaging and additional bone biopsy must be performed to confirm the diagnosis.

Treatment is based on long-term antibiotic therapy, appropriate analgesics and muscle re-education with radiological drainage if necessary.

In this article, we report a case of osteitis pubis after suprapubic adenomectomy.

Keywords: Osteitis; Symphysis pubis; Post surgery; Adenomectomy

1. Introduction

Suprapubic adenomectomy is one of the surgical treatments for benign prostatic hypertrophy, which consists of surgical enucleating of the prostatic adenoma using one of two techniques: retropubic (milin) or transvesical (hryntschak).

Osteitis pubis is an acute or chronic inflammation involving the symphysis pubis and its surrounding attachments, including cartilage, ligaments, muscles and pubic branches [1].

We present a case of osteitis pubis revealed 3 months after suprapubic laparotomy surgery.

2. Case report

A 62-year-old patient underwent suprapubic adenomectomy for benign prostatic hypertrophy estimated at 110 cc with lower urinary tract problems and failure of dual therapy. The patient was in good general condition, hypertensive on treatment, with a body mass index of 23. The preoperative cytobacteriological examination of the urine (CBEU) was positive for susceptible klebsiella pneumoniae, treated with antibiotics 2 days before the operation.

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Cefazolin-based injectable antibiotics were administered 30 minutes before the incision. The operation was performed as follows: laparotomy under the umbilicus to the pubis, plane-by-plane opening, bladder pruning, enucleation, trigonisation, insertion of a bladder catheter with a redon and plane-by-plane closure.

Immediate post-operative follow-up was straightforward. The patient remained afebrile, the dressing was clean, and the redon was removed on Day 2.

The patient was seen in consultation 15 days after surgery. The bladder catheter was retained and directed wound healing was prescribed.

Following delayed healing with soiled dressings, samples were taken (CBEU and wound swab) with a cystoscanner which did not show a fistula. Antibiotic therapy was started and the wound was surgically repaired. The catheter was removed after complete healing 20 days after the revision.

3 months after the operation, the patient presented with pain in both lower limbs with functional impotence, with no sensory deficit on physical examination, as well as intense pain on palpation of the pubic symphysis. The patient reported that the pain began 2 months after the operation and progressively worsened, limiting walking, initially relieved by anti-inflammatory drugs.

Osteitis pubis was suspected, and the patient was admitted to hospital. Initial investigations showed: leucocytes 14,000, c-reactive protein (CRP) 140, CBEU + *Klebsiella pneumoniae*. Morphine analgesia and antibiotic therapy with Ciprofloxacin and Gentamicin were started.

An abdominal and pelvic CT scan (Figures 1 and 2) showed a heterogeneous appearance of the pubic symphysis with local lysis of the bony cortex without any intraspongiosa collection, and a complementary MRI scan was performed (Figures 3 and 4).



Figure 1 A pelvic axial CT section showing a heterogeneous appearance of the bones of the symphysis pubis with lysis of the cortex



Figure 2 Frontal pelvic section showing lysis of the pubic symphysis

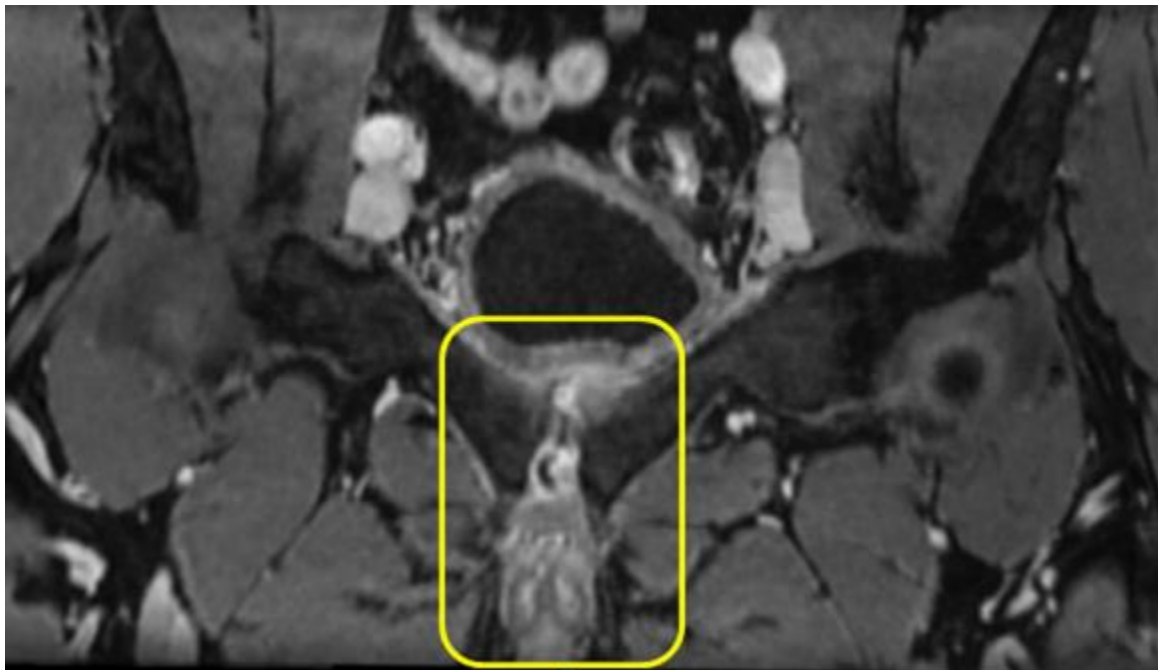


Figure 3 Frontal section of a pelvic MRI scan showing an enhanced wall of the pubic bone after contrast

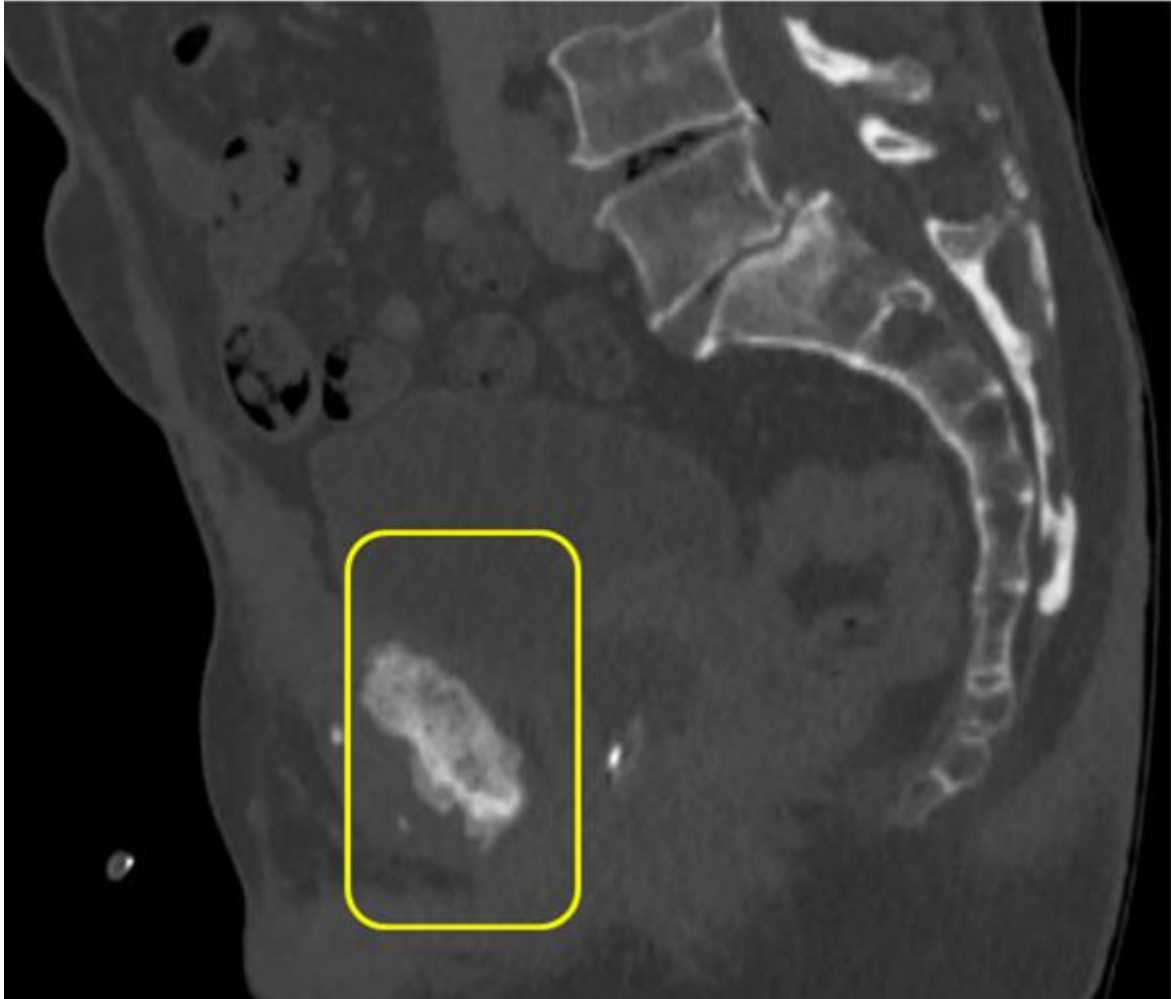


Figure 4 Sagittal section of an MRI scan showing osteitis pubis

A bone biopsy confirmed the diagnosis (acute inflammatory remodeling in favor of osteitis) and the blood cultures came back in favor of a sensitive *Klebsiella pneumoniae*. A clinical-biological improvement was noted after a week of antibiotics and muscle re-education.+

After 3 months of antibiotics and rehabilitation, the patient made a full recovery, with improvement in symptoms and normalization of C-reactive protein levels.

3. Discussion

Osteitis pubis has been known for a long time. The first descriptions of osteitis pubis were made by Elliotson in 1827, Legueu and Roche in 1923, then Beer in 1924 [2].

It is an inflammatory and painful pathology responsible for the destruction of the bony edges of the pubic symphysis. The main symptoms are suprapubic pain and difficulty walking. X-rays show destructive damage to the symphysis pubis [3]. ARLET and KAMMERER-DOAK believe that postoperative osteitis pubis is an infectious disease, apart from the possible inflammatory origin rheumatology patients, or pregnant women; even in athletes, SIBILIA [4].

Osteitis pubis often occurs in a particular situation where there are lesions of the symphysis or locoregional infection, When it is secondary to surgery, a complication is often associated: urinary infection or of the scar, urethral or bladder perforation [5]. This is the case here, with positive and In fact, the favorable conditions are well known: any urogynaecological surgical procedure in close contact with the pubis [6], which was the case with our patient.

According to various authors, the first symptoms appear 2 weeks to 3 months after the causal operation [7.8]. The pain described by COVENTRY and MITCHELL affects the pelvic region, radiating to the inner thighs and perineum, and seems to be exacerbated by walking, sitting, climbing stairs, contraction of the rectus abdominis muscles, etc.

It appears to be exacerbated by walking, sitting, climbing stairs, and contraction of the rectus abdominis muscles (Valsalva maneuver, coughing, etc.), and may lead to a characteristic "waddling gait".

X-rays show destructive damage to the pubic symphysis [9], which was demonstrated on our patient's CT and MRI scans.

Histological examination results show a chronic, non-specific inflammatory reaction [10].

The samples taken from our patient showed a klebsiella pneumoniae infection, according to the literature. It may be staphylococcus aureus (particularly in sportsmen after a cutaneous portal of entry), pseudomonas aeruginosa (particularly in drug addicts, and after urological surgery), Escherichia coli, proteus mirabilis or klebsiella pneumonia after urological surgery, streptococcus B and anaerobes in the post-partum period and polymicrobial infections (particularly in cases of pelvic cancer). Other germs that have been found include pneumococcus, brucella, haemophilus paraphrophilus, enterococcus faecalis, salmonella indiana, peptostreptococcus and mycobacterium tuberculosis [11].

The treatment of acute osteitis consists, after a trocar biopsy for bacteriological and histological purposes, of prolonged antibiotic therapy for more than 3 months, if the diagnosis is made early and in the absence of discharge or cutaneous disunion; in addition, a collection or sequestrum should be eliminated by a CT scan, the presence of which will guide a surgical procedure - this was the case for our patient with a clear improvement after 3 months of treatment.

The treatment of chronic osteitis requires two complementary approaches: extensive surgical removal of the injured tissue and appropriate, prolonged antibiotic therapy. The latter is best started intraoperatively, after bacteriological and histological samples have been taken from the bone and soft tissues, and is adapted to the bacteriological results. An initial intravenous administration for 5-6 weeks is recommended, followed by a 3-month period of intravenous administration [12].

4. Conclusion

Osteitis pubis is a rare emergency and should be considered in the presence of lower limb pain or impotence following open pelvic surgery.

- The diagnosis is based on clinical, imaging and anatomopathological studies
- Evolution is generally favorable with antibiotics and analgesics

Compliance with ethical standards

Acknowledgments

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Disclosure of conflict of interest

No conflict of interest.

Statement of ethical approval

The present research work does not contain any studies performed on animals/humans subjects by any of the authors'.

Statement of informed consent

Informed consent was obtained from all individual participants included in the study.

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