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Case report

Bursa over K nail presenting as pseudo tumor in gluteal region

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ABSTRACT

We present a case of enlarged bursa with calcified/ossified walls presenting as pseudo tumor in the left gluteal region over an indwelling protruded tip of a K nail implanted 18 years back in a 35 years old male. The patient had received initial treatment from a quack and subsequently from a qualified physician before coming to us and was referred to us with a provisional diagnosis of some soft tissue tumor. Removal of the nail and the bursa resulted in complete recovery and full function.

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1. Introduction

The routine removal of orthopedic fixation devices after fracture healing is an issue of debate. There are no evidence based guidelines on the subject. The symptoms that have been reported in the literature of indwelling implants include pain and soft tissue irritation.¹ We present a unique case of a 35 years old male patient who presented to us with a pseudo tumor in the gluteal region as a result of enlarged painless bursa with calcified walls over an indwelling protruded tip of a K nail implanted 18 years back. To the best of our knowledge, no such case has been earlier reported in the literature.

2. Case report

A 35 years old male rural farm laborer presented to us with slowly increasing swelling in the left gluteal region which was

noticed by the patient for 1 year. The swelling was painless. However, the patient felt a feeling of pressure pain after sitting on a hard surface and had to sit with a modified posture for the last 3–4 months. The patient received initial treatment from the village quack in the form of some oil and local applicant without any relief. Just before presenting to us, the patient was treated by a qualified general physician who referred the patient to us thinking as a tumorous growth.

On a detailed history of the patient, it was revealed that he underwent some surgery for the fracture of left thigh 18 years back which did not cause any symptoms to the patient during all these years. The patient did not remember the implantation of any device at the time of surgery. On examination, two scar marks: a 5 cm oblique scar in the gluteal region and a 15 cm longitudinal scar in the mid thigh were present. A swelling of 15 cm × 20 cm diameter was present in the gluteal region which had a varied consistency of cystic, firm and hard in different areas. The local temperature was slightly raised.

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The swelling was nontender and the overlying skin of the swelling was freely mobile. A provisional diagnosis of slowly growing neoplasia was made with a possibility of chondrosarcoma. X-ray showed an intramedullary nail which was protruding about 10 cm proximal to the great trochanter into the gluteal region. The protruding tip of the nail was covered with a well circumscribed cystic cavity with calcified/ossified walls (Fig. 1).

With a diagnosis of bursa overlying the protruded nail, the tumor was ruled out. The surgical excision of the bursa and extrusion of the intramedullary nail was performed. During surgery, the nail was lying loose inside the medullary cavity and was removed along with the bursa without any difficulty (Fig. 2). Histopathology confirmed the condition to be absolutely benign with the findings consistent with a diagnosis of bursa with ossification of the walls.

3. Discussion

In orthopedic practice, pseudo tumors are usually reported due to inflammatory reaction around metal debris produced in metal on metal hip prosthesis.² Less commonly they are also reported as a result of bleeding in the hemophilic patients.³ Tezer et al reported a case of paraparesis caused by pressure of an enlarging mass around a pedicular hook of spinal instrumentation.⁴ In the present case though the mass was significantly large in size, but fortunately there were no

Fig. 1 – Protruding tip of the nail covered with a well circumscribed cystic cavity with calcified walls.

Fig. 2 – Removed nail along with bursa.

pressure symptoms, although the mass was lying in close vicinity of the sciatic nerve.

The ossification of the walls of the bursa in the present case is likely to have taken place because of the communication of the bursa with the medullary cavity and the osteoblasts from the medullary cavity having been spilled onto the walls of the bursa.

The K nail in the present case did not cause any symptoms to the patient for 17 years and it was only during the last 1 year that the patient started noticing a painless enlarging swelling. Had he undergone removal of implant as a routine procedure after consolidation of the fracture, he could have avoided this complication. The routine removal of implants, however, are usually not indicated because it causes wastage of operation time and also it can result into further complications of the surgery performed in the scarred tissues.^{5–8}

In a Finnish study, it was found that the implant removal contributed to almost one third of the elective operation time.⁹ Furthermore, the routine removal of the implant also has an implication on the economy of the patient because of the days taken off from the work and also the cost of surgery especially in a country where the cost of the surgery is largely borne by the patient. Thus usually there is a reluctance of removing an asymptomatic implant both at the level of a busy surgeon as well as an average patient who has to pay himself for the cost of the removal of implant.

The retained implants over the years can also present with symptoms of inflammation mimicking infection. A forearm plate was removed after 50 years of implantation with

a provisional diagnosis of osteomyelitis although it was proved to be metallosis.¹⁰

We feel that as far as possible, the metallic implants should be removed in a planned manner after the consolidation of fractures. The patient undergoing an implant should be informed about the pros and cons of the retaining the implants in the body forever.

Conflicts of interest

No benefits in any form have been received or will be received from a commercial party related directly or indirectly to the subject of this article.

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