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Case report

Pelvic chodroma in the left obturator foramen: The first case report

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ABSTRACT

Introduction and importance: Chondroma is a benign and slow-growing tumour usually located in the hand and foot. Although many cases reported pelvic chondroma, to the best of our knowledge, this case is number one in the world because of the location of the sensitive tumour within the obturator foramen, and we did not review any case mentioned in the medical literature corresponding to our case.
Case presentation: A 9-years-old male presented to our hospital, complaining of an inguinal mass, the patient had no history of pelvic discomfort. Computed tomography showed a hard mass in the left inguinal region. By open surgery, we extracted the mass. The patient was discharged after 4 days with no complaints.
Clinical discussion: Pelvic chondroma is one of the challenging cases that orthopedist's face. We presented a patient with a very hard, painless, not rubefacient and fixed on palpation mass. Computed tomography is considered an imaging study to evaluate such patients. Most cases of chondroma are treated by performing open surgery to extract the mass.
Conclusion: Pelvic chondroma should be extracted by open surgery in order not to extend to nearby tissue and hurt urinary and reproductive organs. The follow-up of these patients is essential, by imaging and pathological studies. Checking family history up is necessary, but in our case, there is no.

1. Introduction

Chondroma is a frequent benign tumour generally located at the bone level. Its extra-osseous location is extremely rare [1,2].

The chondroma is mainly based on the hand or foot, its evolution is slow [2,3]. In the United States, the annual incidence of chordoma is approximately 1 in one million (300 new patients each year) [4].

Two studies of 70 and 140 patients respectively confirm the benign nature of this tumour ts predilection for the distal part of the extremities and the variable character of the histological aspect, which is often wrongly imposed on chondrosarcoma [5,6].

Herein, we are going to present and discuss the first case of pelvic chondroma in the left obturator foramen.

Since this case has not previously been encountered, it will be a new addition to the medical literature for researchers to be able to view it.

This case report has been reported in line with the SCARE Criteria 2020 [7].

2. Case presentation

A 9-year-old male presented to our hospital in Aleppo at the department of orthopedist with complaints of left pelvic mass and with no pain. Physical examination revealed a palpable, hard and fixed mass in the left inguinal region. There is no warmth or redness. The family and past history were not contributory. While taking the patient's clinical history from the family, it was found that there are no previous medical, pharmacological, surgical, or even family history. The general situation was good with no cyanosis or pallor. Initial blood tests include a white blood cell of 6,99 × 10^3/UL, red blood cell count of 3,82 × 10^6/UL, hemoglobin level 11,7 g/dL, platelets count 186 × 10^3/UL, PT:13, INR level 1,1, ACT 86%, Alkaline phosphate level 246 U/L 'Calcium level 9,6 mg/dL. Computed tomography showed a solid tumour that was 5,5 cm in diameter and associated with the left obturator foramen which extends forward and backwards on either side of the left pubis, its edges are irregular and undefined, and it's associated with small-sized fluid under the skin. We didn't see any accompanying tissue

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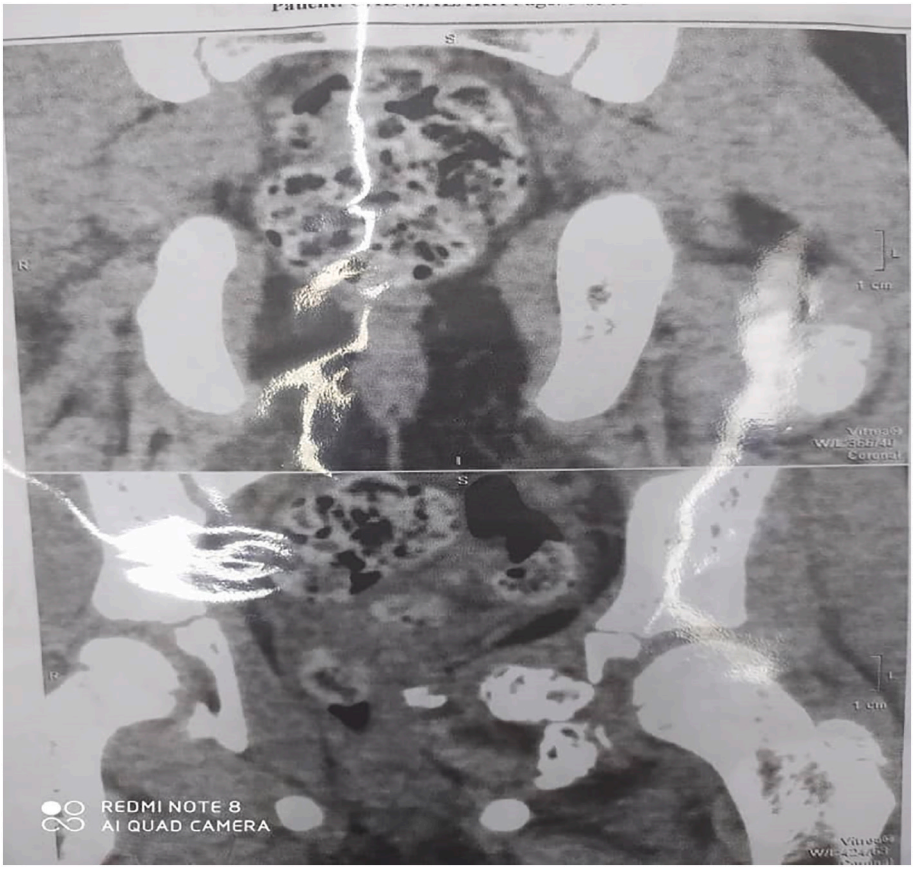

Fig. 1. Computed tomography show a 5.5 cm mass in the left obturator foramen.

component. There were abundant specks of calcifications (Fig. 1). Perioperatively, the tumour was noted to be surrounded by an intact fibrous capsule (Fig. 2). On pathologic examination, 3 incisional biopsies were taken with a size of 1.8–1.5-0.5 cm after tumour removal and the results were microscopically tanned rubbery consistency and microscopically, there were lobules of hyaline cartilage composed of chondrocytes with foci of endochondral ossification and calcification and this leads us to make a definitive diagnosis of chondroma (Fig. 3). We performed the open surgery after confirming the diagnosis with the participation of 6 doctors from the orthopaedic department with an anesthesiologist and a nurse. It lasted for An hour and a half with the application of general anaesthesia with halothane anaesthetic and monitoring both the effectiveness of the pulse and breathing. We removed the entire tumour after reaching the left obturator foramen at the level of the left hypochondrium (Fig. 4), with installing a detonator to remove the pus, and the results were feasible in improving the patient's condition without complications and we encountered difficulties during the surgical procedure because the tumour was attached to the surrounding tissue, we had difficulty incomplete excision because of its location and large size, but the patient's condition was under control with continuous monitoring and the results were accepted by the patient's family, and we chose the surgical treatment because it is the most appropriate for such a benign tumour located in the left hypochondrium without spreading to the adjacent structures and to avoid postoperative infections, metronidazole was applied with ceftriaxone on the first day after surgery. The detonator was removed after two days and the patient was discharged after 6 days and his condition was followed up for 3 months by connecting the patient's family.

3. Discussion

Chondroma is a benign tumour seen in many areas of the body such as the long bones, intracranial and pelvis. In our case, we encountered a very rare case of cartilage within the left obturator foramen.

The tumours occur in males and females with equal frequency, usually seen in the fourth to seventh decades of life.

Patients usually present with subcutaneous solitary nodule occurring frequently in hands and feet; associated with pain and ulceration occasionally.

Usually, chondromas are grossly well-demarcated nodules rarely exceeding more than 3.0 cm in size, but in our case is 5.5 cm in unusual location [8]. Sometimes cut surface shows a glassy or myxoid or calcified appearance same as our case.

Because of the advanced diagnostic methods, radiographs such as computed tomography and magnetic resonance imaging are the best evidence for establishing an initial diagnosis. And to study the tumour more precisely, several biopsies should be taken from the tumour to study it histologically, as it is a sure diagnosis.

It is also important to distinguish chondromas from malignant cartilaginous neoplasms. However, it may be difficult to distinguish between a chondroma and low-grade chondrosarcoma histologically. Some clinical features should raise a suspicion of malignancy, including older age at presentation, rapid growth, and the invasion of surrounding structures. Recurrence or metastasis also helps with the differential diagnosis. Complete excision is recommended for the treatment of chondroma. And most importantly, we do not forget to follow the patient as we did in our case for 3 months to make sure that there is no recurrence.

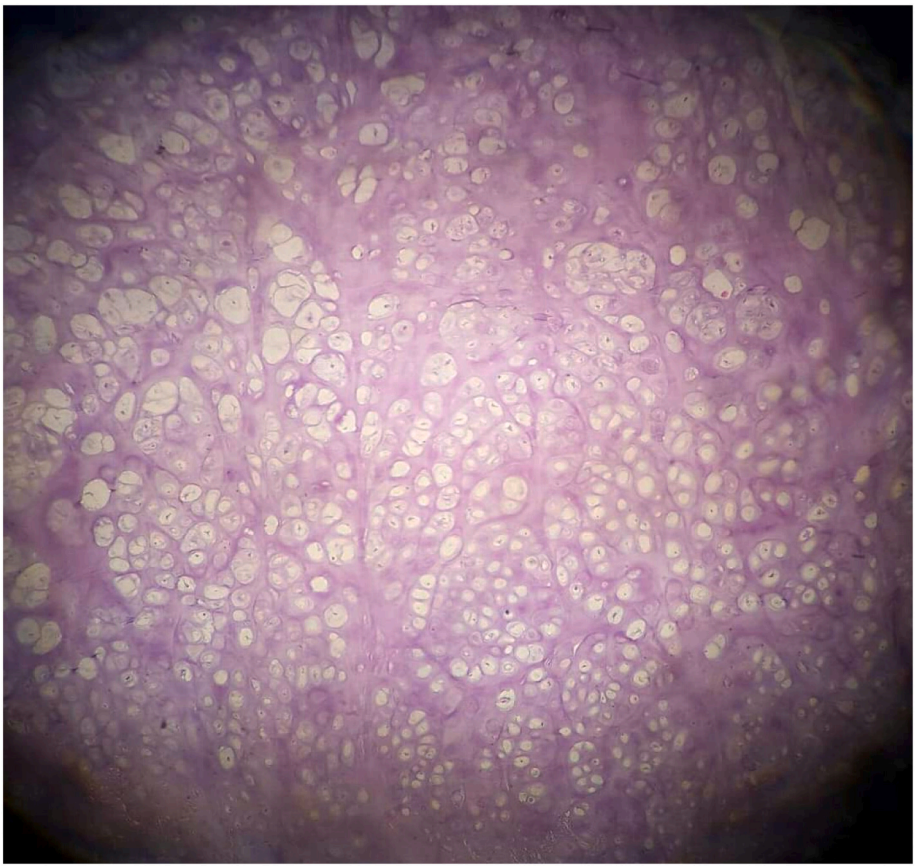

Fig. 2. Pathology picture of the mass.

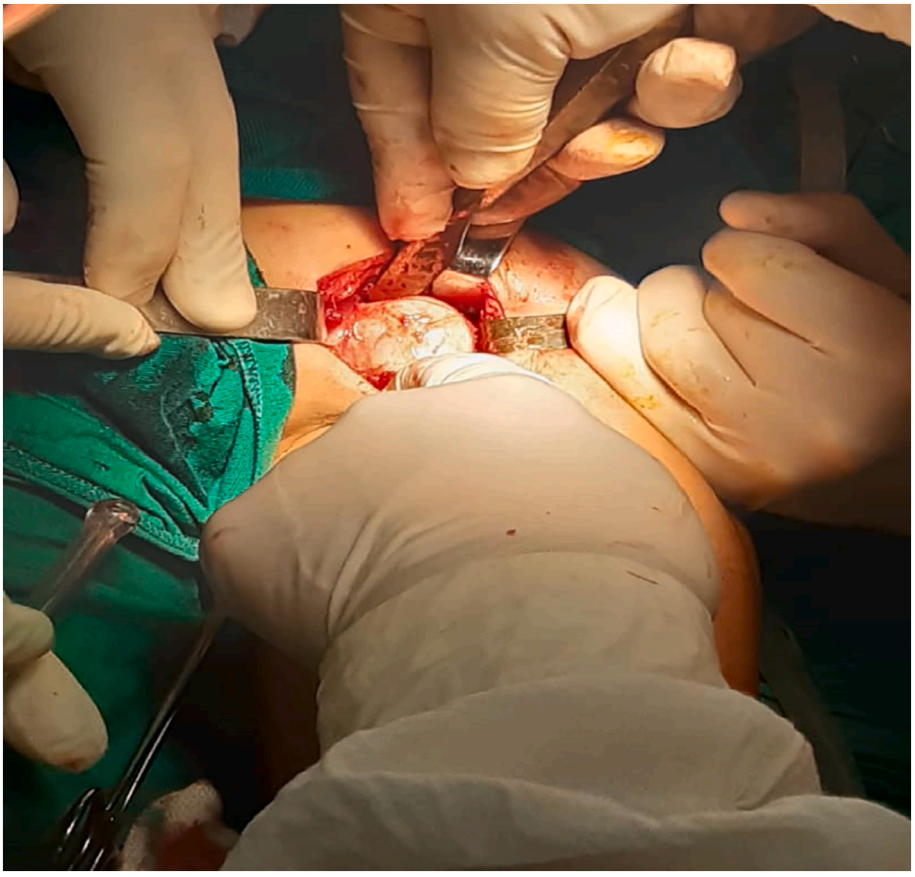

Fig. 3. picture during mass eradication within the surgery.

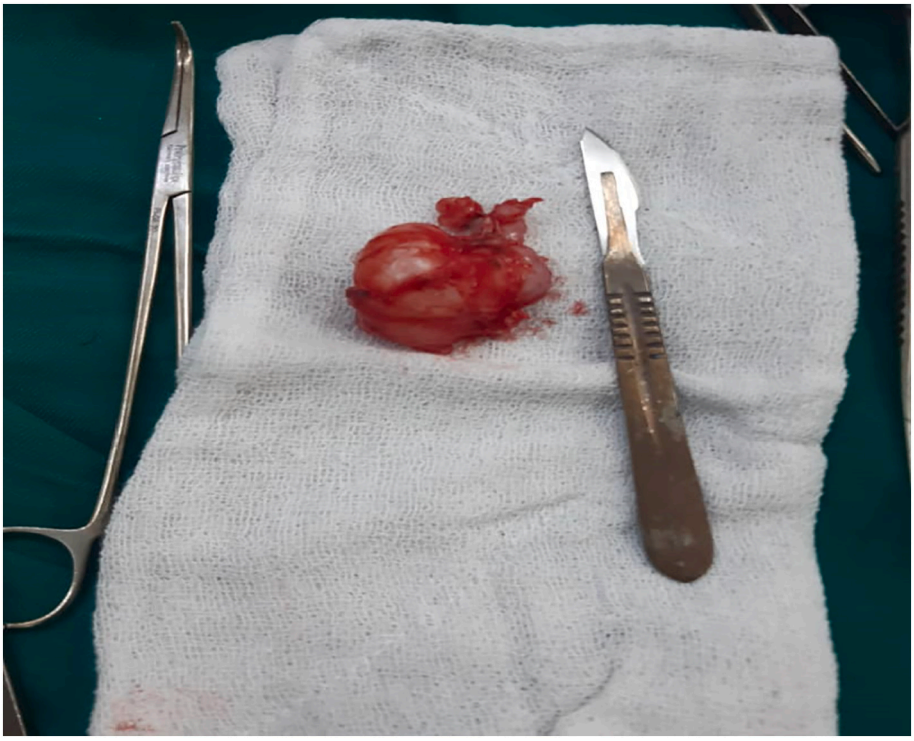

Fig. 4. The mass after extraction.

4. Conclusion

The pelvic chondroma is a common lesion, its localization at the level of the obturator foramen is exceptional. The diagnosis is made at the clinical and radiological examination. The complete excision of the tumour is the best choice for the treatment, and recurrence is exceptional.

CRediT authorship contribution statement

Sarya Swed: contributed to study concept and design, data collection, and writing the paper.

Mohammed Dalaleh: contributed to data interpretation and writing the paper.

Salim tfankji: contributed to data interpretation and writing the paper.

Nawras Alhalabi: contributed to writing the paper.

Rama Alyousfi: contributed to writing the paper.

Declaration of competing interest

All authors declare no conflict of interest.

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Consent

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Research registration

Not applicable.

Guarantor

Sarya Swed.

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