Ganglion Cyst of The Hip

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Abstract

Ganglia are cystic lesions of uncertain etiology that are usually attached to the joint capsule or tendon sheath. They have many different appearances and are the most common soft tissue tumors of the hand, wrist, and foot. A ganglion cyst of the hip occurs rarely and we present such a case. Neither further complaints nor recurrence were observed during a follow-up period of 36 months. We suggest that surgical exploration is needed if the nature of a deep-seated mass is unclear.

Keywords: hip, ganglion cyst

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Introduction

Ganglia are common and usually occur in close relationship to joints, tendon sheaths or tendons. A ganglion cyst may be found over any joint. It has many different appearances and is the most common soft tissue tumor of the hand, wrist, and foot[1]. A ganglion cyst of the hip occurs rarely. In this study, we present a case of a ganglion cyst arising from the hip joint. Surgical resection resulted in complete resolution of the symptoms and no recurrence was observed during a follow-up period of 36 months.

Case Report

A 65-year-old woman with a six-year history of swelling over her left groin region was admitted to our hospital for evaluation and management. Her past medical history included autoimmune thyroid disease and type II diabetes mellitus. She had visited another medical center and a biopsy was performed 6 years before. Although that biopsy on the left inguinal area showed lymphoid hyperplasia, her doctor at that hospital recommended an annual biopsy of the lesion, which had shown the same diagnosis. She became more and more anxious because her inguinal region was still swelling and the possibility of malignancy could not be ruled out. Therefore, she visited our clinic. At that time, physical examination showed a swelling non-tender mass over the left inguinal region. In addition, edema over left lower extremity was also found. The computed tomography (CT) study of the hip (Figure 1) demonstrated a 7x5x10 cm lesion with invasion to the left hip joint. The potentiality of malignancy could not be excluded. So she received surgical exploration.

The surgical approach was through a longitudinal incision just inferior to the inguinal ligament and the femoral neurovascular bundles were identified and

tagged with loops. After careful retraction of the femoral vessels, the ganglion cyst was exposed and a 12x7x5 cm "dumb-bell" shaped cyst extending from the pelvis to the upper thigh (Figure 2) was found. This mass was resected completely and we decided to leave open the communication to the hip joint. Pathological report confirmed the diagnosis of ganglion cyst (Figure 3). The postoperative course was uneventful during 36 months of follow-up.

Discussion

In English medical literature, articles for a ganglion cyst in the hip joint are rare. Ganglia are benign cystic tumors originating from the synovial tissue[1]. They may occur at the wrist, hand, foot, and knee[2]. The diagnosis of ganglia usually leaves no doubt due to their typical clinical appearance.

A ganglion in the hip is embedded in muscles and covered by the femoral vessels and nerve[3]. Its hidden location accounts for the diagnostic difficulties. Pulsations, resembling those from an aneurysm, may be falsely felt on the ganglion secondary to the surrounding femoral vessels. If applying pressure on the ganglion to push away its content, it will be easily misdiagnosed as a reducible femoral hernia[2]. Impingement of an adjacent nerve may result in deficits in motor and sensory functions[4].

The standard x-ray film of the hip is of little value in diagnosing a ganglion, although the extent of degenerative changes may be assessed. Ultrasound screening will reveal a cystic tumor as long as the ganglion's imaging appearance is not altered by debris[3]. The sonographic differentiation from a femoral hernia may also be difficult in the rare case of a gas-containing ganglion[2]. Computed tomography of the ganglion shows a low-density structure, but it is difficult to distinguish between types of soft tissue[3].

The exact cause of ganglion cysts in the hip is still unknown. Two mechanisms have been proposed[3]. The first mechanism is due to effusion in the hip joint and the inflammatory response of the joint capsule. The second is a traumatic tear in the labrum. Mobility of the joint is usually not impaired by the ganglion itself but may be affected by a concomitant joint disorder[7]. The communication between the hip joint and ganglion cyst exists in as many as 40% of hips with osteoarthritis. In these patients, the pressure inside the joint capsule increases because of abnormal production of synovial fluid[5]. Ultrasonography, computed tomography, and magnetic resonance imaging help to rule out more frequent disorders of this region, but in some cases it may only be detected by surgery.

Resection should be considered for large ganglia and in cases with impairment of neighboring structures. Conservative treatment may suffice in small and asymptomatic ganglia. In our case, she had swelling and edema symptoms for the past six years. The CT- or sonography-guided biopsy can not solve the problem. Some authors advocate excision of the ganglion[4, 5, 6, 7] although the value of these recommendations is lessened by the fact that most of surgeons have the experience with no more than one case. Despite the fact that exploration of the deeper groin is necessary, there were no reports of serious complications from the operative procedure itself. There are a few case reports of a hip ganglion being found by surprise during a groin exploration for an undefined tumorous mass; after successful intervention, resection is recommended as the treatment of choice. Surgical intervention is certainly justified in cases with neurovascular involvement or if there is any reason to suspect malignancy, as in our case. When this patient was operated on, we considered the groin mass maybe related to a malignant disease. The ganglion nature was not our main concern. Additionally, we advocate leaving open its communication with the hip joint to prevent its recurrence[8, 9].

In conclusion, we suggest that a surgical exploration is indispensable if the nature of a deep-seated mass is unclear. For this patient, not only did we eliminate the symptoms of the patient and confirm the pathology of the tumor but also reduce the degree of her anxiety.

Figure 1. A 7x5x10 cm lesion at the left inguinal region

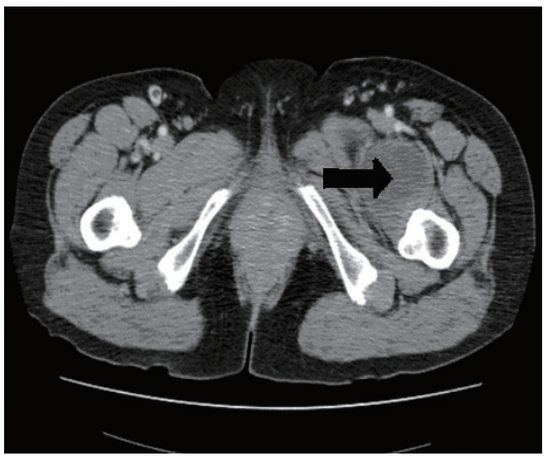


Figure 2. A 12x7x5 cm "dumb-bell" shaped cyst from the pelvis to left upper thigh

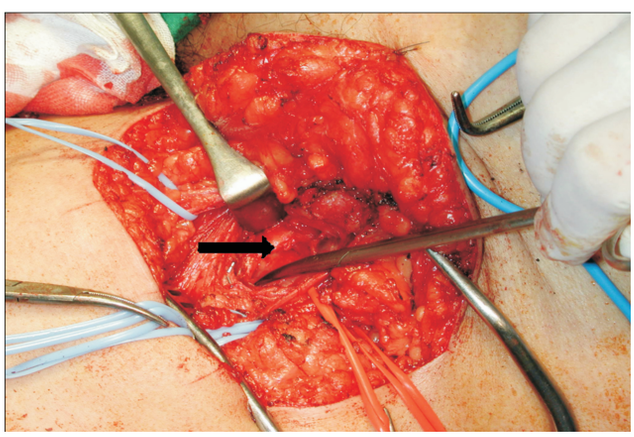
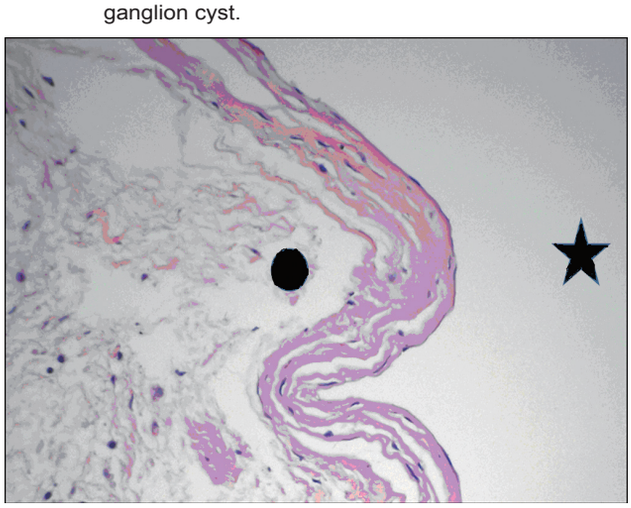


Figure 3.Microscopically, the circle shows myxoid change of fibrous tissue and the star shows formation of a cystic space. These confirmed the diagnosis of a ganglion cyst.



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髖關節之腱鞘囊腫

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摘要

不明病因的腱鞘囊腫通常附著於關節囊或肌腱鞘膜。腱鞘囊腫可能會發生在任何關節。它有許多不同的表徵，乃是手部、腕部和腳部最常見的軟組織腫瘤。然而它卻很少發生在髖關節。我們提出一個臀部髖關節腱鞘囊腫的病例。經過36個月的追蹤，患者並無不適感，而且囊腫沒有復發。此外，對於一個不明本質的深層腫瘤，我們建議，有時候手術探查術是必要的。

關鍵詞：髖關節之腱鞘囊腫