

BURSAE COMMUNICATING WITH THE HIP JOINT. A REPORT ON 2 CASES

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We present two patients in whom abnormal masses in the groin caused diagnostic difficulty. Synovial cysts and iliopsoas bursa enlargement may be more common than previously reported and should be considered in patients with unexplained hip pain and unusual ilio-inguinal swelling.

Keywords : hip joint ; iliopsoas bursa ; synovial cyst.
Mots-clés : hanche ; bourse séreuse ; kyste synovial.

INTRODUCTION

Synovium-related soft tissue disease around the hip joint constitutes a spectrum ranging from isolated iliopsoas bursitis to pure articular synovial herniations without bursal involvement (4). The differential diagnosis includes inguinal or femoral hernia, neoplasm, lymphadenopathy, undescended testis, psoas abscess or hematoma and vascular abnormalities (1, 5).

We present two patients with a mass in the groin due to enlargement of the iliopsoas bursa.

CASE REPORTS

Case 1

A 28-year-old woman presented with increasing pain and swelling in the right groin. Conventional radiography of the right hip was normal. At surgical exploration of the inguinal region, a cyst was removed. The histologic diagnosis was a ganglion. Aspiration followed by cortisone injection was performed twice, in a period of 16 months after the first operation, because of recurrences. Three

years after the last recurrence, a second operation was performed because of recurrent swelling at the same location. Again a cyst-like structure was removed.

Unfortunately 6 months after surgery, a mass appeared again in the right groin. CT examination (before and after contrast infusion) of this fourth recurrence revealed a cavity reaching from the pectineus to the iliopsoas muscle. No communication was seen between the cavity and the hip joint (fig. 1). Because malignancy was suspected the patient was referred to our hospital. For the third time exploration of the right inguinal region



Fig. 1. — Patient 1. CT examination after intravenous contrast, showing a multicystic mass (*), close to the right pectineus muscle.

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took place and radical surgical excision of the mass, including the pectineus muscle, was performed. During this procedure, unexpectedly, a connection between the cavity and the hip joint was seen and closed. Histologic diagnosis was multiple ganglion cysts. There has been no recurrence during a follow-up period of 3 years after the last operation.

Case 2

A 60-year-old woman presented with pain and limited motion of the right hip. A mass in the inguinal region could be palpated. Plain radiographs of the hip showed minor signs of coxarthrosis. A CT scan demonstrated a well-defined, liquid-filled soft tissue mass, posterior to the femoral vessels.

Ultrasonography demonstrated a well-marginated cyst, and aspiration showed synovial fluid on cytological examination. Conventional pelvic radiographs with contrast in the cyst (fig. 2) revealed



Fig. 2. — Patient 2. Contrast medium injected into the cystic mass, demonstrating communication with the right hip joint on conventional radiography.

a cavity in communication with the hip joint, confirmed by CT examination. MRI demonstrated extension of the cyst distally into the muscles of the thigh. A large cyst was found at surgical exploration, reaching ventrally to the femoral artery and vein, and dorsally to the capsule of the hip joint. The cyst contained clear fluid, and an open connection to the intraarticular space was found. The capsule was left open. Histologic examination of the cyst wall showed connective tissue lined with synovial cells. The postoperative course was without complications. One year after the operation the patient is symptom free and there has been no recurrence.

DISCUSSION

Synovial cysts occasionally occur in the hip region. The ilioinguinal bursa is the largest synovial bursa around the hip. It overlies the thin anterior portion of the hip joint capsule, which is composed of the iliofemoral and pubofemoral ligaments, immediately posterior to the iliopsoas muscle (4). Communication with the hip joint may develop due to chronic synovial effusion, as in osteoarthritis or rheumatoid arthritis. The increased intra-articular pressure can produce fluid exchange between the joint and the bursa. This dynamic process is regulated by valvular mechanisms; bursae can therefore act as volume reservoirs (2). Communicating bursae have been demonstrated in 9% of hip arthrograms and in 15% of cadavers (4).

Hypertrophic and villous proliferation of the bursa lining itself with subsequent fluid overproduction may lead to isolated bursa enlargement and iliopsoas bursitis (1).

We present two patients in whom abnormal masses in the groin caused diagnostic difficulty. Cysts may cause pain and limit joint mobility, as we saw in both our patients, or cause compression of adjacent structures. Acute rupture, dissection and infection are known complications (4).

Differentiation of a synovial cyst from other abnormalities is important to avoid unnecessary or incorrect surgery, as reported. Conventional radiography is useful in demonstrating hip disorders that predispose to iliopsoas bursitis or

synovial cyst formation (4). Liquid collections around the hip can be demonstrated easily by ultrasonography, and aspiration can distinguish a synovial cyst or bursar distension from lymphocele, abscess, or hematoma (3).

Arthrography of the hip demonstrates communication with the iliopsoas bursa or opacification of other synovial cysts (3). Communication may be demonstrable only in one direction due to a valve phenomenon (3).

CT and MRI, with or without contrast, are useful for both the diagnosis and determination of the extent of abnormalities affecting the iliopsoas bursa. Communication with the joint capsule may not be evident (3, 5). The use of all radiologic possibilities, as was done in case 2, was of purely academic interest. Simple ultrasound investigation with injection and contrast deposition into the cyst can provide all the necessary information.

Initial treatment is conservative, consisting of aspiration of the cyst contents and steroid instillation. Recurring cysts, as presented in case 1, but also larger primary cysts, as presented in case 2, will require excision (1, 3). It is advisable to close the hip capsule after excision of the cyst. In cases of infectious bursitis, excision of the bursa is necessary (1). Synovial cysts and iliopsoas bursa enlargement may be more common than previously reported and should be considered in patients with unexplained hip pain and unusual ilioinguinal swelling.

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SAMENVATTING

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Bursae van het heupgewricht.

Wij presenteren 2 patiënten waarbij een abnormale zwelling in de lies differentiaal diagnostische problemen veroorzaakte. Synoviale cysten en vergroting van de iliopsoas bursa komen relatief vaak voor en dienen overwogen te worden bij onverklaarbare pijn in de heupregio in combinatie met een ilioinguinale zwelling.

RÉSUMÉ

Y. E. A. VAN RIET, T. J. M. V. VAN VROONHOVEN, C. VAN DER WERKEN, A. N. BERKHOUDT.
Bourses synoviales communiquant avec la hanche.
Présentation de 2 cas.

Nous rapportons l'observation de deux patientes qui présentaient une tuméfaction inguinale de diagnostic difficile. Le kyste synovial et l'hypertrophie de la bourse du psoas ne sont pas rares. Il faut penser à ces deux diagnostics en cas de douleur inexplicable dans la région de la hanche avec tuméfaction inguinale.