Case 414

1. Synovitis Synovial cyst or 3. Iliopsoas bursitis

【Progress】

She will receive artificial hip joint placement in our hospital soon.

【Discussion】

There are three cystic lesions adjacent with joints: synovial cyst, bursitis, and ganglion. Synovial cysts extend to grow outside from joint capsule with communication between joint capsule and synovial cysts whose surfaces are covered with synovial membrane. Bursa exists in between bone eminence and tendon/muscle end to alleviate friction whose numbers are around 130 in a human body. Bursitis occurs with friction between bone and muscle end or tendon. There is no communication between bursa and joint capsule. Ganglion also has no communication with joint capsules. Mechanism of ganglion emergence is not clear, but it is considered that ganglions come from leakage of capsule fluids outside joint capsule or from secretion of tendon sheath serosa.

Baker's cyst is a typical case of synovial cyst that it extends into crevice between head of gastrocnemius and popliteal fossa, causing pain during flexion and/or extension because of compression popliteal nerve (1, 2). Baker's cyst is usually associated with chronic knee arthritis or rheumatoid arthritis.

Bursa exists at large joints such as shoulder, hip, and knee joints in the human body to alleviate friction between bone eminence and muscle itself or muscle tendon. Bursitis with cystic formation occurs in repeated or extensive frictions. Non-steroid anti-inflammatory drugs are usually effective to abate pain. Iliopsoas bursa (or ilio-public bursa) which exists between psoas muscle and ilio-pubic bone eminence, is the largest bursa. It plays a role to alleviate friction between psoas muscle and ilio-pubic eminence at the boundary of iliac bone and pubic bone (3-8). Iliopsoas bursa is at times found incidentally in routine abdomen CT.

Ganglion occurs in housewives of 20ies to 50ies who move often hands and fingers. It contains synovial fluids, becoming jelly as time progresses.

In our case, there two cystic lesions surrounding right hip joint with severe osteoarthritis; one cyst communicates with joint capsule indicative of synovial cyst: another big cyst exists adjacent with psoas muscle posteriorly and laterally, communication with joint capsule is controversial, synovial cyst or iliopsoas bursitis. The big size cyst contains inhomogeneous solid-like components, mimicking malignant tendency. However, ADC values of the contents are 1.664 to 1.751, indicative of no malignancy. Final diagnosis of the big cystic lesion is an inflammatory ilio-psoas bursitis.

【Summary】

We presented a fifty-six-year-old female presented in our hospital for right severe hip joint arthritis with dural cystic lesion depicted on MRI. One cyst communicates with joint capsule indicative of synovial cyst, while another big cyst contains solid-like component mimicking malignancy with unclear communication routes whose ADC values are 1.6 or greater, indicative of no malignancy, making a clinical diagnosis of probable iliopsoas bursitis. It is borne in mind that iliopsoas bursa exists at the boundary called ilio-pubic eminence between ilia bone and pubic bone posterior to psoas muscle. ASD values are eligible to diagnose whether it is malignant or not. Synovial cyste communicate with synovial capsule, while bursitis and ganglion do not communicate with synovial capsules.

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