Case Report

Scrotal Pain as the First Manifestation of Scrotal Leiomyoma: A Case Report

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Primary scrotal leiomyoma is derived from smooth muscle cells of tunica dartos. A 37-year-old Thai man, barber by profession, presented with left scrotal pain and subsequently, a solid mass is reported. As a relatively rare neoplasm, the initial diagnosis and differential diagnosis are intricate. The management was surgical excision. The well circumscribed 1 cm mass appeared as homogeneous, whorled-like, with interlacing fascicles of spindled muscle cells, and a strong positive desmin immunoreactivity. Upon follow-up, pain had disappeared one year after surgery. Reassurance and careful re-examination to reduce anxiety was also needed.

Keywords: Leiomyoma, Scrotum, Pain, Smooth muscle tumor, Tunica dartos

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A variety of masses can occur in the testes and paratesticular structures(1,2). The paratesticular structures can give rise to various benign (lipoma, leiomyoma, hemangioma, or fibroma) and malignant tumors; however, these are extremely rare(3). The paratesticular tumors encompasses about one-tenth of the testicular tumors(4). It was found that the incidence rate of testicular cancer was 2.5 to 2.7 per 100,000 cases worldwide(5). In accordance with different series, 70 to 84% of solid paratesticular tumors are benign(6,7), while 3 to 30% are malignant(2,5-8). Scrotal leiomyoma is a rare benign tumor of a paratesticular lesion. Seigal GP et al found that scrotal leiomyoma was 7.9% of primary neoplasm of the scrotal wall(9). The paratesticular tumors may be clinically indistinguishable from testicular tumors, thus resulting misdiagnosis initially(2). Most tumors of this region present as a scrotal mass or swelling, which may or may not be painful and are occasionally accompanied by a hydrocele(2). Nevertheless, previous reports of scrotal leiomyoma, a rare tumor of the paratesticular structures appears as either painless circumscribed(6,9) or pedunculated mass(10,15). This report presents the scrotal pain as the first manifestation of scrotal leiomyoma.

Case Report

A 37-year-old Thai man came to the primary care clinic with the symptom of a localized left scrotal pain for one week. He described the pain as dull and aching, which only exists while walking or standing. There was no referring pain. The pain became very disruptive, as he needed to stand all day working as a barber. The history revealed no urethral discharge, dysurea, or increase in urinary frequency. There was no history of sexual transmitted disease or trauma. No significant previous illness was presented. He did not take any medication regularly. He had never experienced these symptoms before. He is currently married and has one child.

Physical examination revealed a healthy man with normal vital signs. Abdomen was soft and non-tender. No mass was palpable. Hernia was absent in both side of inguinal region. No inguinal lymph node was palpable. Scrotal skin and testes were normal. The patient had visited the clinic three times prior to the operation. Initially, no mass was palpable within the scrotal sac. The first clinical diagnosis was testicular
pain of unknown cause. Analgesics were prescribed. A week later, the pain had subsided while taking medication. Re-examination revealed a mass of 0.5 cm in diameter located at the lateral side of the testes, near the epididymis. It was mobile and non-tender, not fixed to skin or any adjacent tissue. Either varicoceles or epididymitis was suspected. No laboratory test was ordered. Symptomatic treatment was prescribed with analgesics and antibiotic. The patient was advised to return if the symptoms persist or worsen. The patient revisited the clinic for the third time, four months later. The examination revealed the mass of 1.0 cm in diameter. He was advised for surgical excision.

The incision was done through all layers of left scrotal skin and tunica dartos. A firm rubbery whitish mass of 1.0 cm in diameter was found at the lateral side of the testes surrounded by soft tissue. The mass was completely excised without any difficulty. Grossly, the mass was circumscribed, relatively ovoid, firm grey-whitish mass measuring 1.0 x 0.8 x 0.7 cm. The cut surface 0.5 cm in diameter displayed homogeneous and whorled-like appearance. It bulged from the adjacent soft tissue. Microscopically, it was composed of interlacing fascicles of spindled muscle cells (Fig. 1A) that showed deep eosinophilic stain with Masson trichrome stain (Fig. 1B). A strong immunoreactivity for desmin was shown in Fig. 1C. There was a weak immunoreactivity to sarcomeric actin (Fig. 1D). The specimen did not show reactivity for S-100 protein.

Discussion
According to previous reports, most patients with scrotal leiomyoma present with a painless mass. The time required for the patient to visit a doctor varies widely from 4 weeks to 20 years (9-25). Due to lack of symptoms, most patients wait for a long time before seeking medical care. Compared to the presented patient, due to the scrotal pain disrupting his daily activity, he had to visit a doctor early after only a week of symptom. Pain may trigger by adjacent pain sensitive structure of skin and testicular nerve. If pain was the primary symptom, it may lead to the diagnosis of more common conditions such as epididymitis, hematocoele, hydrocele, spermatocele and torsion of testicular appendage (26-30), rather than neoplasm. History, physical examination, and follow-up will increase the accuracy of the diagnosis (31,32). The scrotal mass can be any pathological conditions according to corresponding anatomy. However, if malignancy is the differential diagnosis a thorough investigation should be done since the treatment between benign and malignancy condition is different. The age of the presented patient was 37 years, which is consistent with the age of 32 to 65 years of the previous reports. The mass was 1 cm in diameter, which is in the range of 0.6 to 9 cm of the same reports. Surgery and follow-up are the treatment of choice for scrotal leiomyoma. Despite surgical treatment, pain may carry on in about 19% of cases (33). Persistent pain can leave the patient feeling anxious and often leads to frequent visits to the doctor. For the presented patient, the pain disappeared within 1 year after surgery. Careful follow-up, re-examination, ultrasound of scrotum, and reassurance are needed for the high quality of care (34).

In conclusion, solitary scrotal leiomyoma can present with painful scrotum that brings the patient to the doctor much earlier than a painless mass. There are many common diseases causing scrotal pain, however, leiomyoma is a rare differential diagnosis.

References
รายงานผู้ป่วยที่มาด้วยอาการปวดก่อนพบเนื้องอกกล้ามเนื้อเรียบของถุงอัณฑะ

สมจิต พฤกษะริตานนท์, สุอัชฌา พฤกษะริตานนท์, สำเริง รัตนะระพี, เชิดศักดิ์ พฤกษะริตานนท์

รายงานเนื้องอกปฐมภูมิของกล้ามเนื้อเรียบถุงอัณฑะช่วงซ้ายในชายไทย อายุ 37 ปี มาด้วยอาการปวด 1 สัปดาห์ ต่อมาเจริญเติบโตเกิน เนื้องอกมีอาการปวดและเป็นโรคที่พบไม่บ่อยทำให้ไม่สามารถวินิจฉัยได้ และไม่ได้อยู่ในวินิจฉัยแยกโรค ผู้ป่วยได้รับการผ่าตัดเนื้องอกขนาด 1 เซนติเมตร ผลการตรวจด้วยกล้องจุลทรรศน์และอิมูโนวิทยาเนื้อเยื่อพบเป็นเนื้องอกของกลุ่มเซลล์เนื้อเยื่อ อาการปวดหายไปภายใน 1 ปี หลังการผ่าตัด การสืบคดีและการตรวจร่างกายซ้ำทำให้ผู้ป่วยคลายความวิตกกังวลได้