

# Multiple giant intrascrotal lipomas and adenomatoid tumor of testis: the clinical and pathological diagnosis of scrotal masses

## Abstract

Intrascrotal lesions continue to provide a diagnostic challenge for urology doctors. A diagnosis can be made with a thorough history, physical examination and understanding of the pathophysiological processes of the structures contained within the scrotum. Lesions that are suspicious for malignancy should prompt urological consultation and radiological imaging. Ultrasound aids in the diagnosis in instances of uncertainty. Ultimately surgery may be necessary to make a histological diagnosis. In order to improve the level of diagnosis and treatment for the intrascrotal masses, now reports two cases of intrascrotal masses.

**Case 1:** Lipoma is a common benign tumor, it can occur in any part of the fat in our bodies, like the limbs and hips, but it is so rarely that occur in spermatic cord, scrotum and testis. A 72-year-old male noticed a mass with no pain in the right scrotal region, and was admitted to hospital. The ultrasonography before operation was the possibility of scrotal lipoma. Tumor resections were performed. Grossly the tumor was multiple, seven well-defined, yellowish, white, and solid, and the big one measuring 10x8x3cm. The tumors had a thin capsule and were attached to the right testis and epididymis. What's more, the final pathological examination was scrotal lipoma.

**Case 2:** Adenoma testicular tumor is a special, rare kind of benign tumor. It is one of the most common benign tumors in testicular beside tissue, accounts for about 30% of all the testicular beside mass. A 38-year-old male present a paroxysm pain on the left side of scrotum and was misdiagnosed with epididymitis. He was used with the antibiotics for seventeen days and was no relieve of the symptom. Then the ultrasonography showed that the left testis was small volume and shape abnormality and with no blood supply. To be avoiding the possibility of testicular torsion the left side testicular exploration was carried on. Grossly, a tumor was being found growing into the testis intraoperative size 4cm and with a thin capsule. The tumor was soft, gray and the section was grayed. Histologic examination showed most of testicular tissue autolysis, the residual part tissue necrosis, with a large number of neutrophil infiltration, and the fibrous connective tissue hyperplasia with bright cells and chronic inflammatory cell infiltration. These cells were AE1/AE3, Vim, CEA, CD34, CD68, S-100, and SMA positive and were negative for EMA on immunohistochemical studies. The pathologic findings were adenomatoid tumor of testis and testicular inflammation.

**Keywords:** intrascrotal lesions, pathological examination, lipoma, adenomatoid tumor, immunohistochemical

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## Introduction

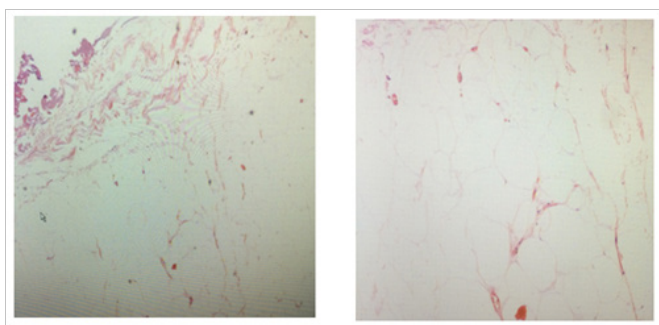
Benign testicular tumors are relatively rare. It is reported that the benign testicular tumors are make up about 1% ~ 3.5% of testicular tumor in the literature. We summarize important clinical, pathological and diagnostic features of benign intrascrotal lesions, including paratesticular lesions (adenomatoid tumors, fibrous pseudotumors, cystadenomas, spermatoceles, hydroceles, varicoceles and hernias) and intratesticular lesions (tunica albuginea cysts, testicular simple cysts, epididymoid cysts, and cystic ectasia of the rete testis, intratesticular varicocele, adrenal rest tumors and splenogonadal fusion). This review provides the reader with a better understanding of benign lesions that occur in the scrotum. Lipoma is a common benign tumor, it can occur in any part of the fat in our bodies. Part of the cases occurred in the limbs and hips, mainly in the skin, it can also be found between the deep limb and the abdominal muscle, always occurs in the olds, rarely in the child. Several kinds of lipomatous tumors occur in the spermatic cord, scrotum, and testis.<sup>1</sup> They include

lipoma,<sup>2</sup> spindle cell lipoma,<sup>3</sup> lipoblastoma,<sup>4</sup> liposarcoma,<sup>5</sup> and fibrolipoma. Lipomas rarely malignant transformation, are operation excision. But this case is occurred in the scrotum of an old aged Seventy-two and present multiple. It is rare. In order to improve the level of diagnosis and treatment for the disease, now report as follows.

## Case report

In October 11, 2014, a 72-year-old male patient was admitted to Union Hospital Affiliated to Tongji Medical College of Huazhong University of Science and Technology because of a scrotal mass. The patients found the scrotal mass in 2013 October under no incentive situation. At the beginning it plays at soybean volume, no pain, no fever, no frequent micturition. It was progressively increased.<sup>6</sup> Recently, he has felt discomfort from the mass, especially during walking. He has a Pituitary tumor operation history more than six years, usually in good health. Physical examination revealed some round, 10cm \*6cm soft masses inside the right scrotum. The mass is no tenderness, light test negative, without bowel sounds. Procumbent tumor size never

changed. The scrotal skin around is normal, bilateral testicular and testosterone attached is not abnormal, bilateral inguinal lymph nodes palpation without exception. Color Doppler ultrasound showed around right testicle exploration two about the size of 10cm \*7cm low Acoustic lesion, no blood flow signals inside. Preoperative diagnosis of lipoma of scrotum. Preoperative chest X-ray, electrocardiogram and the laboratory discipline examination showed no abnormalities. In October 13, 2014, the patient underwent surgery under the epidural scrotal anesthesia. Through a scrotal incision, a large fatty mass, with smooth margins and without tissue invasion was found.<sup>7</sup> Tumors size of 10cm\* 8 cm\* 3cm, 7cm\* 5cm\* 1cm in total seven masses. What's more, the mass tumor had been completely stripped, after resection for disease detection. Postoperative pathological diagnosis of scrotal lipoma (Figure 1). After 6 months of follow-up there was no recurrence of scrotal lipoma.



**Figure 1** Postoperative pathological diagnosis of scrotal lipoma.

## Discussion

Lipoma is a clinical common skin benign tumor, it Derived from mesenchymal tissue and histological into mature fat cells and fibrous septa. Lipomas always occur in the limbs of the body, the torso, hips, rare in the urogenital system, more rarely occur in the scrotum. Lipoma of scrotum can occur in children and adults. Lipoma of scrotum always without specific clinical manifestation, patients come to hospital with accidental discovery or tumor increased scrotum bulge. Solitary lipoma of the scrotum is soft and elastic, no adhesion with the surrounding tissue or the surface of the skin, activity. If multiple, boundary is not clear; it can with the surrounding tissue adhesion. The preoperative diagnosis of scrotal lipoma is difficult and easy to misdiagnosis. Its diagnosis always depends on pathological examination, but the Imaging studies including Ultrasonography and Computed Tomography is are helpful to the diagnosis. Typical scrotum lipoma in Ultrasonography is present to hypoechoic, there is a funicular mixed echo, the boundary can be clear or not clear, and the internal of lipoma presents no blood flow signals.<sup>8</sup> Computed Tomography is scan showed the shadow of nodular fat in the scrotum, is lobulated, and also clearly shows the relationship of the lipoma and testis and epididymis. Scrotal lipoma can occur single or multiple, and the pathology is lobulated, also have a thin capsule, and On its cut surface the tumor was solid, lobulated,

and yellowish white. Its pathology need identify with liposarcoma, fiber lipoma, and so on.<sup>9</sup> Scrotal lipoma is similar with other parts of the soft tissue lipoma, before diagnosis it must identify with the following diseases: (1) Testicular Tumors Testicular tumors is hard, and the transillumination was negative, ultrasound and computed tomography (CT) suggest that testis substantial contains space-occupying lesions.<sup>10</sup> (2) Inguinal Hernia, it occurs because of the Bowel or greater omentum since across the inner ring mouth prominent into the scrotum, recumbent can generally return back. If the contents are Loops, it can sometimes hear bowel sounds. (3) Hydrocele Testis Hydrocele was initially suspected, but transillumination was positive, and it can be deformation. For large size scrotum lipoma can cause discomfort such as patients with scrotal belly and require surgical treatment. Surgical removal of the lipoma is an effective treatment, surgery should be along the fat capsule when tumors had coated will complete resection, in order to prevent recurrence.

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## Conflicts of interest

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