Primary scrotal Lipoma posing a diagnostic quandary: Experience from Northern Tanzania

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Abstract

Primary scrotal lipoma is a rare urological diagnosis. It is usually diagnosed incidentally as most of time initial diagnosis may be confused with other common etiology of scrotal masses. Here, we present a case a rare case of scrotal lipoma with initial misdiagnosis of hydrocele at primary health facility.

INTRODUCTION

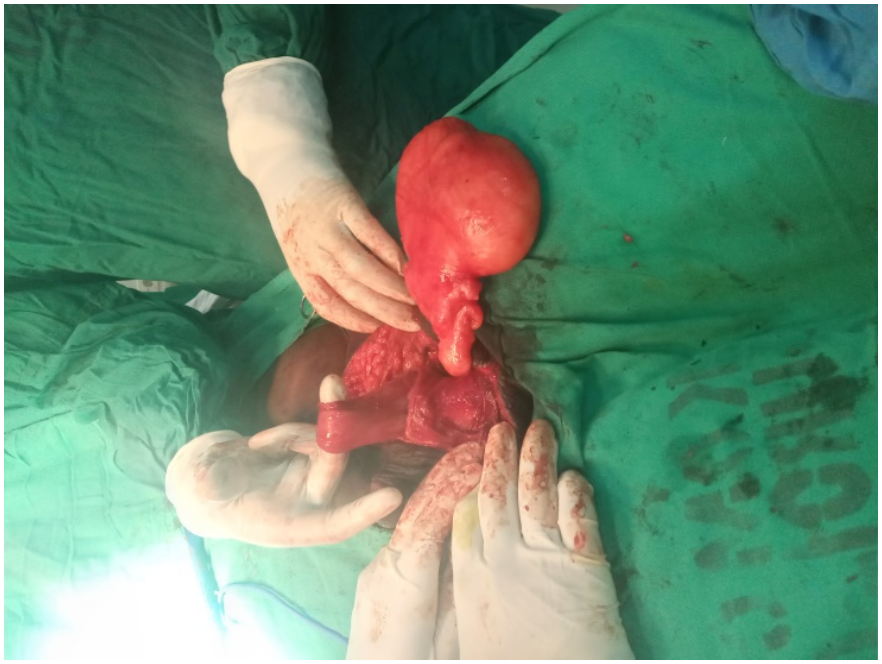
Scrotal mass is a common problem among men of all age groups [1]. There is a wide range of differential diagnosis that spans from malignant to benign conditions [1, 2]. The most common differentials include testicular torsion, epididymitis, varicocele, hydrocele, inguinal-scrotal hernia, epididymal cyst and testicular cancer [3, 4]. Primary scrotal lipoma is a rare urological entity which usually poses a diagnostic quandary. Here, we present our experience and challenges in a case of primary scrotal lipoma in a 40 years male. A differential diagnosis of primary scrotal lipoma should always be thought in any patient presenting with scrotal swelling. The work has been reported in line with the SCARE 2020 criteria [5].

CASE PRESENTATION

A 40 year male presented with one year history of scrotal swelling which was progressively increasing in size and associated with on and off pain. The patient reported no other symptoms in reminiscence. He had no known history of chronic illness neither family history of the same clinical presentation. He attended a primary center where he was diagnosed to have hydrocele and underwent scrotal surgery. He has no history of undescended testis, prior scrotal surgery neither family history of testicular cancer. Intraoperative, the surgeon couldn't find a fluid filled sac instead a huge solid mass was identified. They couldn't figure out the possible diagnosis and therefore the procedure was abandoned by closure of the incision. The patient was then referred to urology department of a tertiary hospital for further evaluation and possible treatment.

On arrival he was conscious and no lympnodes were palpable in general examination. Abdominal examination was unremarkable. The external genitalia revealed medial raphe scrotal incision and mild tender, firm, irreducible, left hemiscrotum mass measuring about 7x 10 cm. The ipsilateral testis could not be felt separate from the mass and could go above the mass easily. A diagnosis of testicular cancer with differential of epididymochitis and infected hydrocele were entertained. Laboratory investigations were within normal limits including α- fetal protein, β- HCG and lactate dehydrogenase. Scrotal ultrasound reported features suggestive of malignant scrotal mass while abdominal ultrasound revealed normal findings.

Testicular exploration was planned through inguinal crease incision in urology theatre following his consent .At exploration, the incision was extended to the scrotum, the spermatic cord was clumped high up at the inguinal area and followed down to the scrotum. The whole spermatic cord and testis were normal but there was well circumscribed fatty like mass in the scrotum on the lateral aspect of the testis. The mass was firmly attached to the scrotal wall. The impression of scrotal lipoma was made (figure1) and excision was done and incision was closed in layers(figure2). The tissues were taken to pathology department for histopathology assessment that confirmed to be a lipoma(Figure 3 and 4). Post-operative period was uneventful and the patient was discharged on day 4 post operatively and sutured removed on day 10 postoperative. The patient has been attending the clinic regularly and currently a year after excision where was found to have no any recurrence.



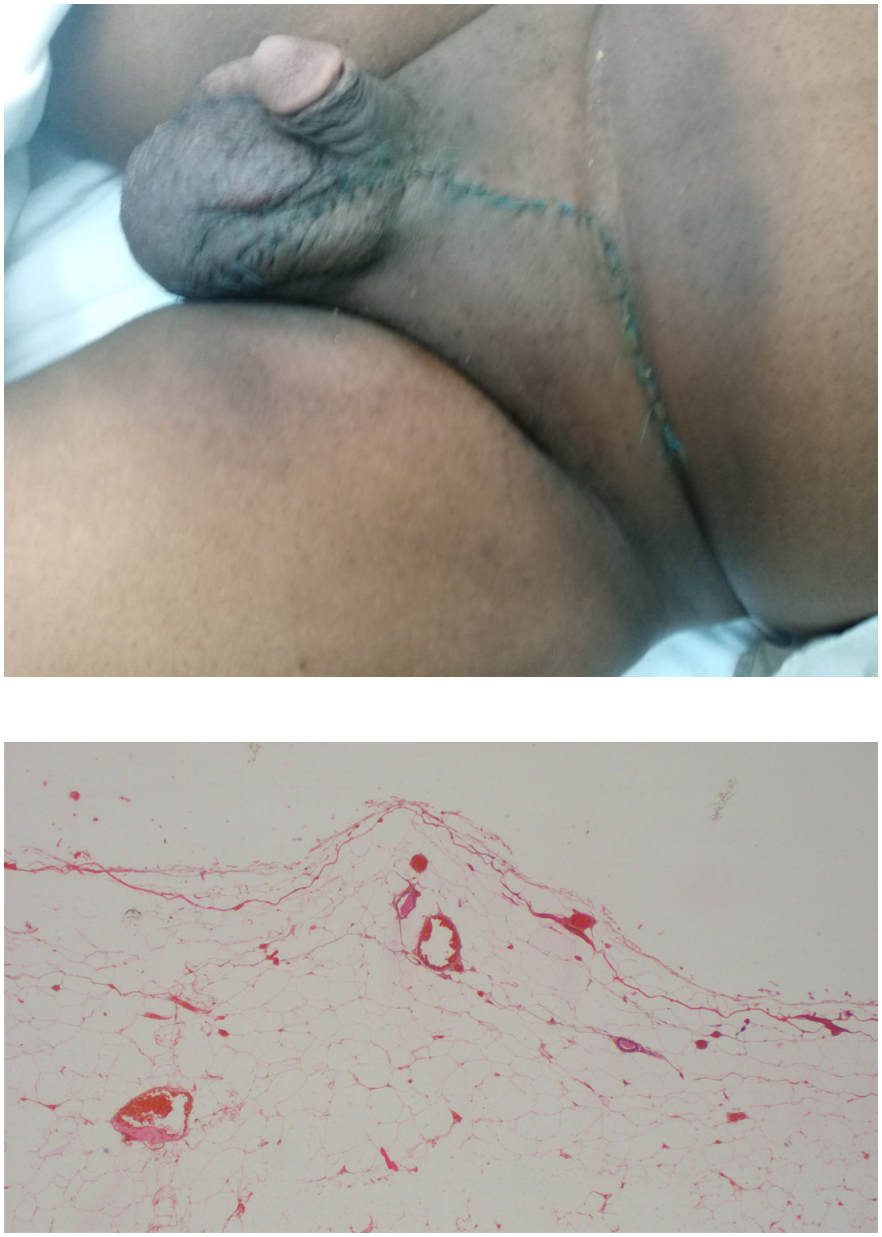


Figure 3: A Hematoxylin and Eosin-stained photomicrograph showing mature adipocytes without atypia admixed with congested blood vessels x 04 magnification.

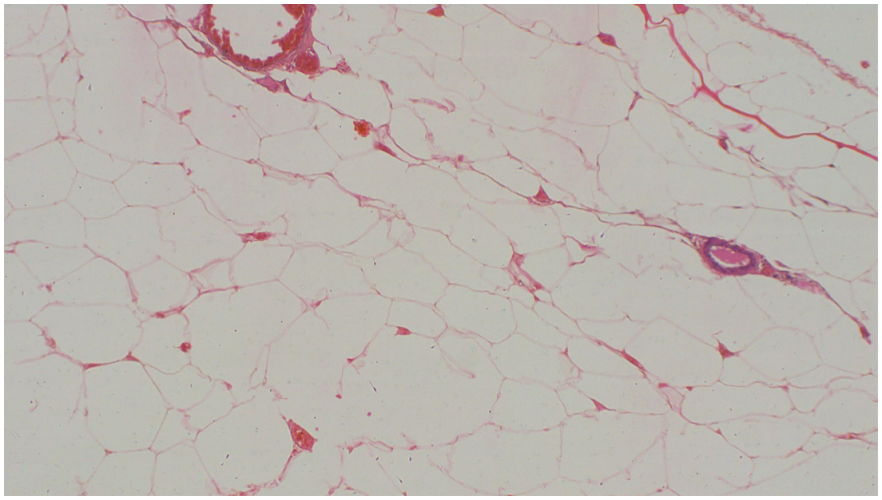


Figure 4 : A Hematoxylin and Eosin-stained photomicrograph showing mature adipocytes without atypia separated by thin fibrous stroma and blood vessels x40 magnification.

DISCUSSION

Lipoma are benign mesenchymal neoplasms with rare occurrence in the scrotum [1]. Primary scrotal lipoma usually originates from spermatic cord. However, it can also originate outside the spermatic cord or in subcutaneous tissue [1-3]. We present an extremely rare case of primary scrotal lipoma which originated from subcutaneous tissue.

Primary scrotal lipoma can occur in any age group. Most of the time it is unilateral with variable size [6-8]. Clinical presentation is not specific but most patients present with scrotal mass which may be diagnosed incidentally on clinical examination or the patient himself may complain of scrotal mass when it is significantly increased [6]. Like in our case, most of the time clinicians think of varicocele, hydrocele, testicular tumor, inguinal scrotal hernia or epididymorchitis [7] whenever they encounter a testicular mass. Ultrasound and computed tomography are helpful in diagnosing scrotal lipoma but require an experienced ultra-sonographer. Typical finding in ultrasound is hypo-echoic mass, no blood flow and the boundaries may be clear or not clear [7]. There is no pathognomonic finding from history, examination neither imaging which poses a diagnostic challenge to clinicians. In our case, impression from ultrasound was hydrocele and testicular tumor at peripheral hospital and KCMC hospital respectively. Furthermore, in our case the first ultrasound suggested the mass to be hydrocele and the differential diagnosis of scrotal lipoma was missed.

Definitive treatment for scrotal lipoma is lipectomy to remove pressure symptoms and also to prevent its progression to liposarcoma although it's a rare occasion . In our case, lipectomy was done and patient was free of symptoms. Primary scrotal lipoma has a good prognosis [8].

CONCLUSION

Primary scrotal lipoma is a very rare benign scrotal tumor with no pathognomonic findings both clinically and from imaging which poses a diagnostic dilemma to clinicians. A differential of primary scrotal lipoma should always be considered in any man presenting with scrotal mass. Surgical treatment is effective with good prognosis.

Ethical approval

There was exemption of ethical clearance.

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Author Contribution

OJM and BNN conceptualized and prepared the first manuscript. OJM,JM, BNN, FB, JSM and AKM reviewed the patients' medical records, planned and provided treatment. AP prepared histolopathology results and slides. All authors read and approved the final manuscript.

Conflict of Interest

All authors have declared that no competing interests exist.

Statement of Informed Consent

Written informed consent was obtained from the patient for publication of this case report and accompanying images. A copy of the written consent is available for review by the Editor-in-Chief of this journal on request.

Guarantor

Orgeness Mbwambo is the guarantor of this work.

Provenance and peer review Not commissioned, externally peer-reviewed

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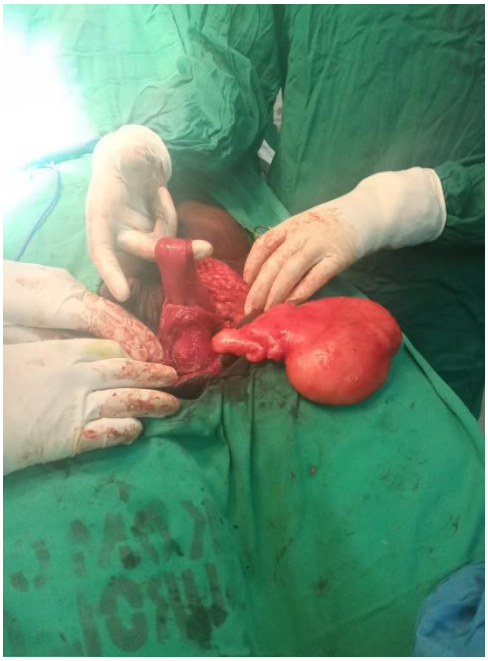


Figure 1: Intraoperative photograph showing a fatty like lobulated mass lateral to spermatic cord and testis

A: Spermatic cord B: Lipoma

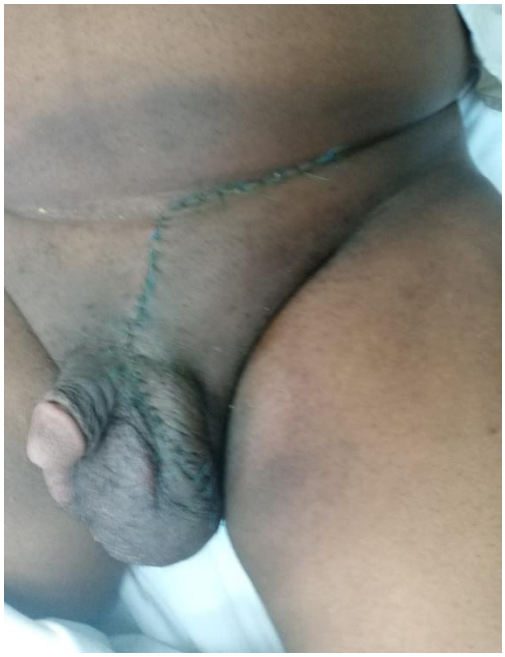
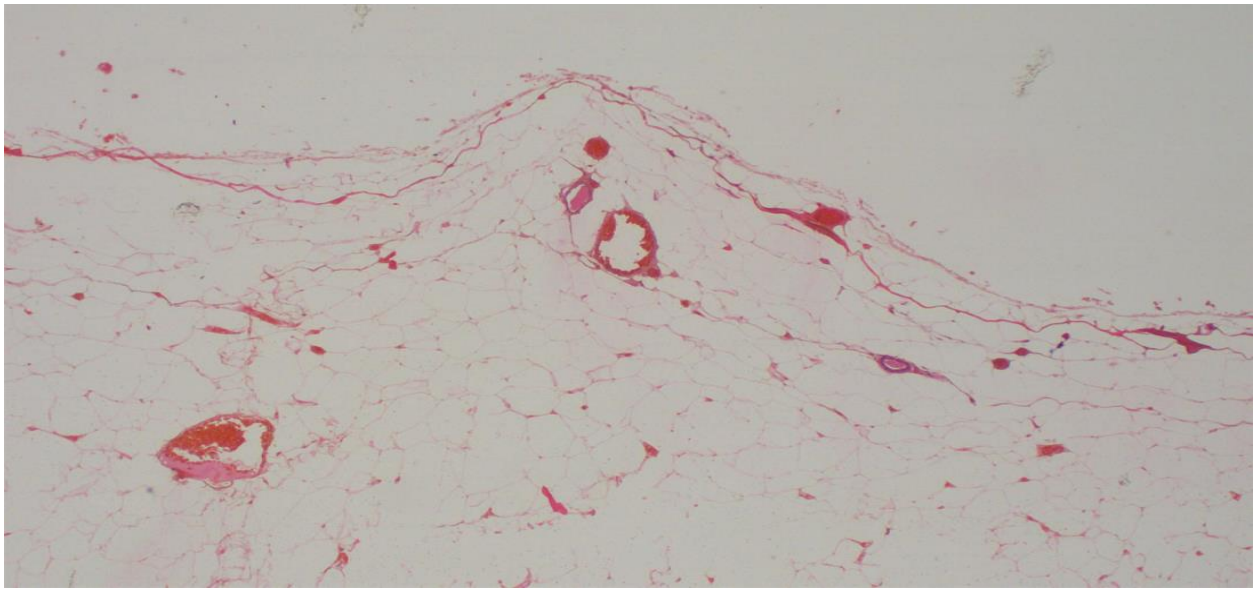


Figure 2: Wound with intact nylon suture on day 10 post-operative before removal of sutures.



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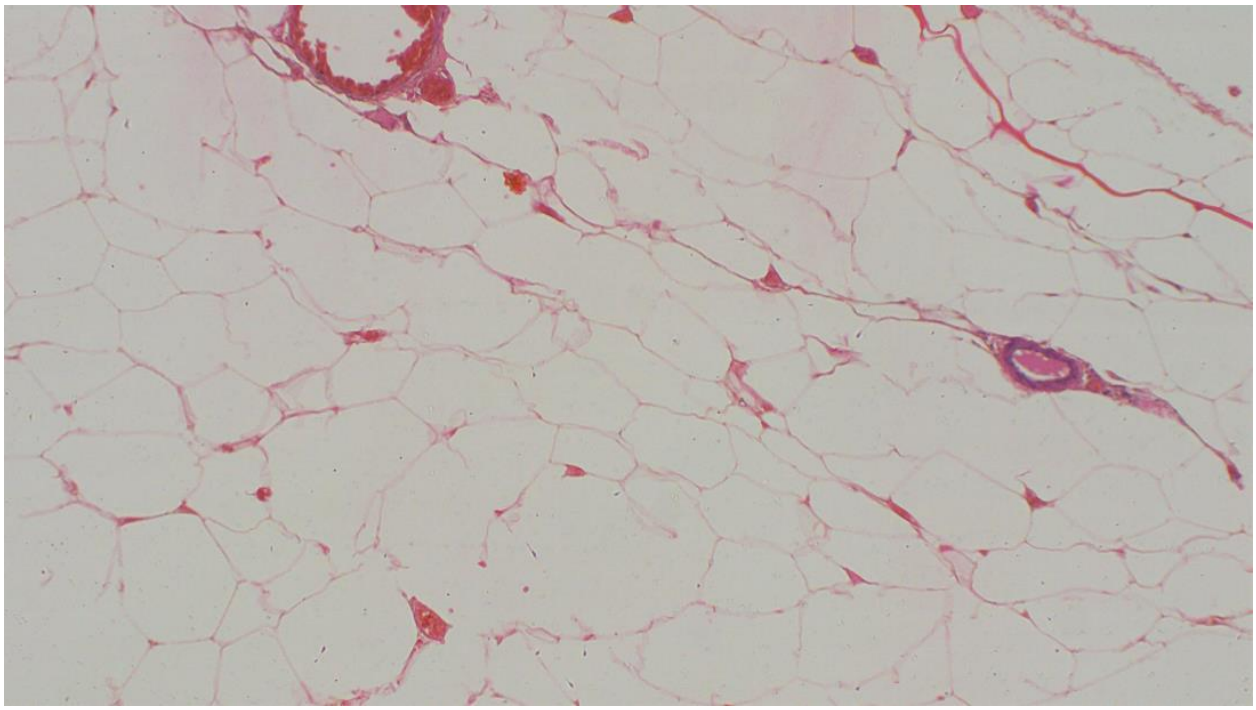

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