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journal homepage: www.casereports.comHydrocele accompanying testicular cavernous hemangioma: A infant case report[☆]

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ABSTRACT

Testicular hemangioma is a rare benign testicular tumor. In this case we presented who an infant applied to our clinic with left scrotal swelling. The tests performed were found to be compatible with testicular hemangioma and accompanying hydrocele. We performed inguinal exploration due to hydrocele accompanying testicular hemangioma. Pathology of tissue was found to be compatible with testicular cavernous hemangioma. In our investigations, it was seen that it was the first infant cavernous hemangioma in the literature.

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1. Introduction

Hemangioma is a common soft tissue tumor. However, Testicular cavernous hemangioma is a rare benign vascular lesion, which localized in testicular area [1,2]. There are approximately 55 cases reported so far in the literature. Therefore, in this paper; we aimed to present a testicular cavernous hemangioma case detected at the youngest age in the literature.

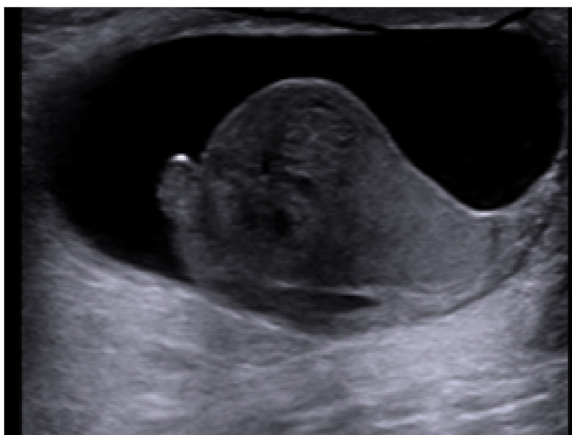


Fig. 1. 11 × 10 mm lesion with multiple cystic components in solid cystic at USG.



Fig. 2. Testicle and removed hemangioma tissue during the operation.

This case report is compliant with the SCARE 2020 guidelines [3].

2. Case report

A four-months-old baby applied to the urology clinic with swelling in the left testicle. Physical examination revealed a hydrocele in the left testicle. Therefore, we performed a scrotal

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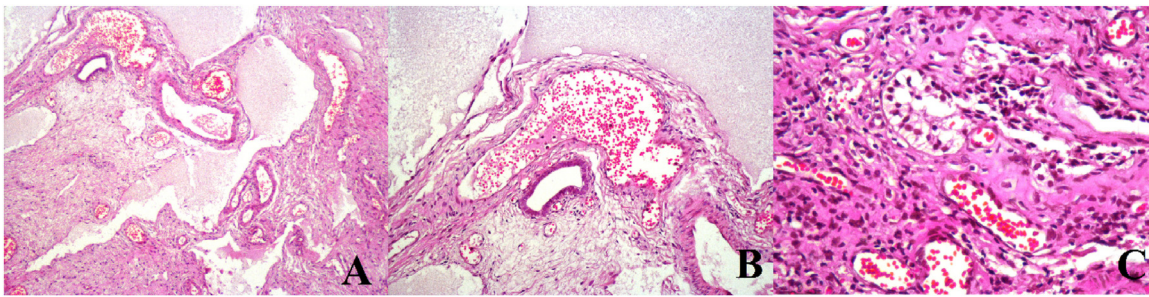


Fig. 3. A–B: Dilated vascular structures (hematoxylin and eosin staining) $\times 100$. C: Dilated vascular structures penetrated into testicular tissue (hematoxylin and eosin staining) $\times 200$.

doppler ultrasonography (USG) to evaluate any potential intrascrotal lesions. USG showed a 11×10 mm solid cystic lesion which contains multiple millimetric cystic cavities in the left testicle. Moreover, the lower part of the lesion was vascularized (Fig. 1). The laboratory findings including tumor markers and serum levels of α -fetoprotein, lactate dehydrogenase were normal. The s-human chorionic gonadotropin (hCG) level was determined as 8 IU/L. Left inguinal exploration was performed (Fig. 2). The patient underwent enucleation of the left testis mass through an inguinal approach. Histopathological investigation revealed cavernous hemangioma (Fig. 3).

3. Discussion

Hemangioma is a rare benign tumor of the testicle [2]. Although its etiology is not clear, it may cause uncomfot due to local compression. Therefore, a definitive treatment following diagnosis is important. In this case, we present a 4-month-old baby patient with hydrocele accompanying testicular hemangioma. This case is the first infant case reported in the literature. In addition, the presence of hydrocele accompanying testicular hemangioma makes the diagnosis difficult and specific in this case.

In the differential diagnosis of testicular tumors, hemangiomas should be one of the diagnoses besides germ cell tumors, stromal tumors and sex cord tumors. USG is a useful tool to diagnose hemangioma. There are characteristic USG findings for testicular hemangioma such as hypo-echogenic central part with hyper-echogenic findings [4]. However, there was a suspicious increase in hCG in our case. These findings are not sufficient for the diagnosis. Although multiparametric USG has been defined for testicular hemangioma in recent years, this is not sufficient, and surgical exploration and pathology are required for definitive diagnosis [5].

Magnetic Resonance Imaging (MRI) can be used to differentiate testicular hemangioma and testicular tumor. However, anesthesia is required for MRI in a 4 month-old child. Repeated anesthesia applications can also be toxic in infants [6]. Therefore, in cases where tumor suspicion cannot be completely ruled out, the decision should be made by talking to family. In our case, the family wanted a definitive diagnosis and no delay due to tumor risks. Since the family did not want the baby to repeat anesthesia, testicular sparing surgery was performed.

It is known that the use of propranolol, decreases the hemangioma in infantile hemangiomas. However, its pathogenesis has not been fully explained [7]. When studies on the use of propranolol in hemangioma are examined, there is no data on its use in testicular cavernous hemangiomas. In order to protect fertility for such masses, testicular sparing surgeries should be planned first. We also performed testicular-sparing surgery in our case. In this way, we aimed to protect the baby from infertility.

4. Conclusion

We reported the first case of infant testicular cavernous hemangioma in the literature. It should be kept in mind that testicular cavernous hemangiomas may also be seen in infants. Testicular cavernous hemangiomas can be confused with malignant testicular tumors. The presence of accompanying hydrocele may cause malignant lesions to be missed. It is important to protect fertility during childhood. In such cases, testicular sparing surgery should be applied. Pathological evaluation is required for definitive diagnosis.

Declaration of Competing Interest

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Ethical approval

“They consented in writing to the publication of his case details and images.” University of Health Sciences Sisli Hamidiye Etfal Training and Research Hospital University Review Board do not issue ethical approvals for case reports. Patient family were informed and consented to the publication of both the case and images.

Consent

Informed consent was obtained from all individual participants included in the study.

Author contribution

Study Conception: CK.
Data collection: CK, İHB.
Writing: İHB, ATA.
Final Approval of the article: All Authors.
Critical review and revision: All Authors.
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Registration of research studies

Not applicable.

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