

Cavernous hemangioma of the glans penis

Soumya Mondal, Deepak Kumar Biswal, Dilip Kumar Pal

Department of Urology, Institute of Post Graduate Medical Education and Research, Kolkata. West Bengal, India

Abstract

Cavernous hemangioma of the glans penis is a very rare lesion, and only a few cases are reported in the literature. Urologists are in a dilemma to treat such lesion with cosmetic and to obtain good functional outcome. Here, we report a case of cavernous hemangioma of the glans penis in a 22-year-old boy with a successful outcome by intralesional sclerotherapy with 3% sodium tetradecyl sulfate with a review of the literature on the subject.

Key Words: Glans penis, hemangioma, sclerotherapy

Address for correspondence:

Prof. Dilip Kumar Pal, Department of Urology, Institute of Post Graduate Medical Education and Research, 244, AJC Bose Road, Kolkata - 700 020, West Bengal, India. E-mail: drdkpal@yahoo.co.in

Received: 12.10.2014, **Accepted:** 04.11.2014

INTRODUCTION

Hemangioma is a benign vascular malformation and classified into capillary, cavernous, arteriovenous, venous, and mixed subtypes.^[1] Cavernous and mixed varieties are most common and mostly found in the musculoskeletal system, liver, and spleen. It is rarely found in genitalia and constitutes only 1–2% of all hemangiomas.^[2] In a comprehensive review, Dehner and Smith described 10 benign angiomatous lesion of the glans penis,^[3] since then another 11 such lesions in the glans penis have been reported in the literature.^[1,4-10] Here, we present such a case treated by intralesional sclerotherapy with 3% sodium tetradecyl sulfate as OPD basis with successful outcome and we recommend this mode of simple and low cost treatment rather than surgical excision or laser therapy.

CASE REPORT

A 22-year-old boy presented with swelling over the glans penis for last 4 years. The swelling increased in size on

erection. The lesion was operated before 1-year, but it recurred within 2 months. On examination, there was an elevated irregular lesion, about 2 cm × 2 cm in its maximum dimension, on the right dorsolateral portion of the glans penis [Figure 1]. It was bluish-red in color with a smooth surface and irregular margin, compressible, nontender, and nonpulsatile. Color Doppler ultrasonography confirmed the low flow state in the lesion consistent with the diagnosis of cavernous hemangioma. There was no other lesion in the rest of the body. There was no history of trauma of bleeding from the lesion.

The hemangioma was treated by instillation of sodium tetradecyl sulfate 3%. 1 ml of the sclerosant was directly instilled into the lesion with a 26G needle with a tourniquet at the base of the penis to prevent filling. Then compression was applied for about 10 min for emptying the hemangioma. Pressure dressing on the glans penis was applied for 48 h. The procedure was repeated after 1-week. In the 3rd week, patient presented with a scab [Figure 2] which was removed spontaneously with a resultant ulcer and the lesion disappeared in 6th week. There was no telangiectasia, scar or ulcer at 6th week of follow-up [Figure 3]. Till 1-year of follow-up, there was no recurrence.

DISCUSSION

Etiology of hemangioma is uncertain; it is believed to be abnormal proliferation of endothelial cells of dysplastic

Access this article online	
Quick Response Code:	Website: www.urologyannals.com
	DOI: 10.4103/0974-7796.152037



Figure 1: Clinical photograph of the penile lesion



Figure 2: Postsclerotherapy at 3rd week



Figure 3: Postsclerotherapy at 6th week

vascular channels. Mostly it is a congenital vascular anomaly, but some believe it may be due to revascularization of a previous penile hamartoma^[1] or sometimes may develop after trauma.^[4]

It may occur at any age, and usual presentation is with bright red compressible papules, nodules or plaques when fully developed. Rarely, patient may present with pain on erection, ulceration, or hemorrhage from the lesion. Usually, they remain asymptomatic or may be noticed due to esthetic regions or may present with bleeding following trauma.

Diagnosis of such entity is entirely clinical. Color Doppler ultrasonography may show low flow state in cavernous hemangioma as in our case. Magnetic resonance imaging or computed tomography is unable to show any clear demarcation between cavernous body and the angiomatous malformation.^[1] However, cavernosography is helpful to locate the extension of the angiomatous lesion into the corpora cavernosa.^[1]

Various modes of management have been described in the literature like laser therapy,^[1,6] surgical excision,^[5,10] and sclerotherapy with sodium tetracycline sulfate,^[4] 30% hypertonic saline^[7] and 2% polidocanol.^[8,9] Sclerotherapy has been proposed to act by disruption of vascular endothelium with resultant of thrombus formation in the vessel lumen with subsequent fibrosis and sclerosis. Later, histiocytic digestion leads to disappearance of the treated lesion over a period.^[9] Surgical excision may lead to excessive bleeding with sexual dysfunction due to pain and scar formation as an additional complication.^[1] Laser therapy though currently advocated, may need multiple procedures for complete removal, but it is costly.^[5] Comparatively sclerotherapy is less expensive and easily available, but sometimes it may also lead to necrosis of adjacent tissue, ulceration, and hyperpigmentation.^[1,5] In developing countries, sclerotherapy may prove to be cost effective and safe and with reproducible showing satisfactory results. The exact dose, method, and duration are still under evaluation as the incidences are very rare.

REFERENCES

1. Cheng G, Song N, Hua L, Yang J, Xu B, Li P, *et al.* Surgical treatment of hemangioma on the dorsum of the penis. *J Androl* 2012;33:921-6.
2. Alter GJ, Trengove-Jones G, Horton CE Jr. Hemangioma of penis and scrotum. *Urology* 1993;42:205-8.
3. Dehner LP, Smith BH. Soft tissue tumors of the penis. A clinicopathologic study of 46 cases. *Cancer* 1970;25:1431-47.
4. Sharma G. Hemangioma of glans penis. *Internet J Urol* 2004;3:1.
5. Lee JM, Wang JH, Kim JS. Multiple cavernous hemangiomas of the glans penis, penis and scrotum. *Korean J Urol* 2008;49:92-4.
6. Jimenez-Cruz JF, Osca JM. Laser treatment of glans penis hemangioma. *Eur Urol* 1993;24:81-3.
7. Senoh K, Miyazaki T, Kikuchi I, Sumiyoshi A, Kohga A. Angiomatous lesions of glans penis. *Urology* 1981;17:194-6.
8. Hemal AK, Aron M, Wadhwa SN. Intralesional sclerotherapy in the management of hemangiomas of the glans penis. *J Urol* 1998;159:415-7.
9. Tsujii T, Iwai T, Inoue Y, Kubota T, Kihara K, Oshima H. Cutaneous

- hemangioma of the penis successfully treated with sclerotherapy and ligation. *Int J Urol* 1998;5:396-7.
10. Savoca G, De Stefani S, Buttazzi L, Gattuccio I, Trombetta C, Belgrano E. Sclerotherapy of hemangioma of the glans penis. *Urology* 2000;56:153.

How to cite this article: Mondal S, Biswal DK, Pal DK. Cavernous hemangioma of the glans penis. *Urol Ann* 2015;7:399-401.

Source of Support: Nil, **Conflict of Interest:** None.