

# Hemangioma Of Glans Penis

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## Abstract

Hemangiomas of the glans penis are very rare lesions. Very few cases have been described in the world literature. They have been treated in different ways using sclerotherapy, surgical excision or laser ablation.

A case of hemangioma of the glans penis was diagnosed in a 22-year-old man. After its evaluation with color doppler it was treated with sclerotherapy using 3% sodium tetradecyl sulfate with satisfactory result.

The case is presented for its rarity and to describe the satisfactory results of sclerotherapy using sodium tetradecyl sulfate. Certain technical aspects to minimize the complications due to sclerotherapy are also stressed.

## INTRODUCTION

Hemangiomas of the urinary tract are rare lesions and those of the glans penis are even more rare. In a comprehensive review of penile soft tissue tumors, Delmer and Smith, in 1970, described 10 benign angiomatous lesions of the glans penis (1). Since then 10 more angiomatous lesions of the glans penis have been reported (2,3,4,5,6,7,8).

A case of hemangioma of the glans penis treated with sodium tetradecyl sulfate is described.

## CASE REPORT

A 22 year old man came with complaints of swelling over the glans penis which he had noticed since his childhood. The swelling increased in size on erection.

On examination there was an elevated irregular lesion on the right dorsolateral portion of the glans penis (Fig. No.1). It was 2 \* 1.2 cm in its maximum dimension. It was bluish red colored with an irregular surface. It was compressible, non tender and non pulsatile. Clinical examination as well as color doppler evaluation confirmed the low flow state in the lesion; consistent with the diagnosis of cavernous hemangioma.

## Figure 1

Figure 1: Pre Sclerotherapy – Glans Hemangioma



Treatment was performed under local anesthesia using 2% lidocaine for penile block. Sodium tetradecyl sulfate 3% was the sclerosant used. The hemangioma was emptied by compression. A tourniquet was applied at the base of penis to prevent further refilling of the hemangioma. Using a 26-gauge needle 0.5 ml of the sclerosant was injected in the hemangioma at 3 different sites. The needle was introduced in the hemangioma from the normal part of the glans. Compression of the hemangioma was then maintained for 5 minutes after which the tourniquet as well as the compression was released. Post sclerotherapy a compression

dressing was applied over the lesion and was kept for 48 hours.

The patient was followed up at weekly intervals after the treatment. There was mild telangiectasia in the surrounding area along with the formation of a scab over the lesion (Fig no.2). The scab separated on its own in 8 weeks leaving a flat area with minimum pigmentation (Fig. No.3). The patient was satisfied with the aesthetic result.

### Figure 2

Figure 2: Post Sclerotherapy – at 4 weeks



### Figure 3

Figure 3: Post Sclerotherapy – 8 weeks



## DISCUSSION

Hemangiomas of the glans penis are usually asymptomatic. They represent a benign malformation since the basic structure of the corpus cavernosum, glans penis and blood vessels is closely related (9). Hence it is not surprising that there often exists a continuity between the angiomatic lesion and the cavernosal bodies, which manifests as engorgement of the lesion with erection.

Various modalities have been used for the treatment of these hemangiomas, including surgical excision (3), laser therapy (2) and sclerotherapy (6, 7, 8). Intralesional sclerotherapy is a cost effective viable option especially in developing countries where expensive laser equipment is not available. More over it can be given in the outpatient clinic under local anesthesia and is easy to repeat (6). Sclerotherapy is performed by direct injection of a small quantity of an irritant solution into the abnormally enlarged vein or vascular malformation with immediate compression to keep the solution in contact with the endothelium and the sclerosant within the injection site. The sclerosant disrupts the endothelium and causes vessel wall destruction and edema in few minutes. This causes thrombus formation in the vessel lumen. Subsequent fibrosis causes endosclerosis. This fibrosis along with the resorption of the coagulum by histiocytic digestion causes disappearance of the treated lesion over a period of time (10).

The sclerosants used for the treatment of the hemangiomas of the glans penis have been 30% hypertonic saline (6) and 2% polidocanol (7, 8). In the case mentioned above sodium tetradecyl sulfate 3% was used.

Compared to lasers, sclerotherapy is less expensive and easily available. But Intralesional sclerotherapy can be associated with complications like cutaneous necrosis, ulceration and hyper pigmentation. The following precautions during sclerotherapy can prevent these complications

1. Using minimum amount of sclerosant solution.
2. Injecting small amount of the sclerosant at multiple sites instead of injecting the entire solution at one site. Repeating the therapy after few weeks is preferable to having complications by injecting a large amount of sclerosant at on site.
3. Using a small gauge needle
4. The needle used for sclerotherapy should be

introduced in the lesion from the normal area.

5. Post injection compression should be applied.
6. The scab formed should be allowed to separate on its own and no attempt should be made to remove it.

The above case is presented for the rarity of the condition and to present the satisfactory result after sclerotherapy.

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