Pediatr Surg Int (2005) 21: 329–330
DOI 10.1007/s00383-004-1346-9

CASE REPORT

Amar Shah · Lisa Meacock · Bharat More
Harish Chandran

Lymphangioma of the penis: a rare anomaly

Accepted: 5 November 2003 / Published online: 6 January 2005
© Springer-Verlag 2005

Abstract Lymphatic malformations are known to affect any part of the body. However, lymphangiomas involving the penile skin are rare. We report a case of a cutaneous lymphatic malformation of the penis.

Keywords Penis · Lymphangioma · Child

Case report

An 11-year-old boy was referred with a swelling over the dorsal aspect of his penis. The swelling was noticed incidentally and had grown over a period of a few months. There was no history of trauma nor of any urinary complaints. Clinical examination showed a soft mass on the dorsal aspect of the penis. The full blood count and peripheral smear were normal. A magnetic resonance imaging scan showed a fluid-filled subcutaneous lesion of the penis with some extension towards the root of the right hemiscrotum. There was no high flow or postcontrast enhancement.

The patient underwent local resection of the lesion. Dissection extended to the level of Buck's fascia of the penis (Fig. 1). The rest of the skin was trimmed and reapposed (Fig. 2). Microscopic examination revealed thickened epidermis with dilated lymphatics in the dermis. Multinucleate giant cells were present in lymphoid aggregates, with loose fibroconnective stoma. The findings confirmed a lymphangiomatous malformation of the penile skin.

The boy made an uneventful postoperative recovery. Eleven months after the procedure, minimal fullness is noted on the lateral aspect of the penis, suggesting recurrence. However, it is not causing any symptoms or cosmetic disfigurement. The boy is presently in regular follow-up with a plan for staged resection if the size of the lesion increases or causes disfigurement.

A. Shah · L. Meacock · B. More · H. Chandran (✉)
Paediatric Urology, Birmingham Children's Hospital,
Steelhouse Lane, Birmingham, B4 6NH, UK
E-mail: Harish.Chandran@bhamchildrens.wmids.nhs.uk
Tel.: +44-121-3338068

Discussion

Lymphangiomas are benign hamartomatous tumours of the lymphatic system characterised by multiple communicating lymphatic channels and cystic spaces. Many lymphangiomas involve the skin and subcutaneous tissues, and association with vascular malformations is frequent. The common sites of involvement are the tongue, cheek, neck, chest, buttocks, extremities, and peritoneal cavity. We found only two previous reports in the English literature of lymphangioma affecting the penile skin [1, 2]. Lymphangiomas are now considered lymphatic malformations not communicating with the lymphatic system. Cutaneous lymphatic malformations may arise de novo or secondary to surgery or irradiation [3]. Minor trauma may also cause the lesions to become symptomatic. However, inflammatory, parasitic, and other causes of congenital and acquired lymphoedema need to be ruled out.

Surgical excision is the treatment of choice [4]. Staged excision is required in at least one-third of cases [5]. Laser fulguration is described [6], but the treatment must be individualised according to the location of the lesion and preservation of vital functions. Other modalities of management, such as radiation treatment or injection of sclerosing agents, have not been of benefit in treating lymphangiomas. OK-432, a monoclonal antibody produced by incubation and interaction of *Streptococcus pyogenes* and penicillin, can be used in extremely large cystic lesions in locations difficult to manage surgically.

In our patient, all macroscopically abnormal tissue was excised with preservation of sufficient penile skin. Recurrence may necessitate staged excision, with or without skin grafting.

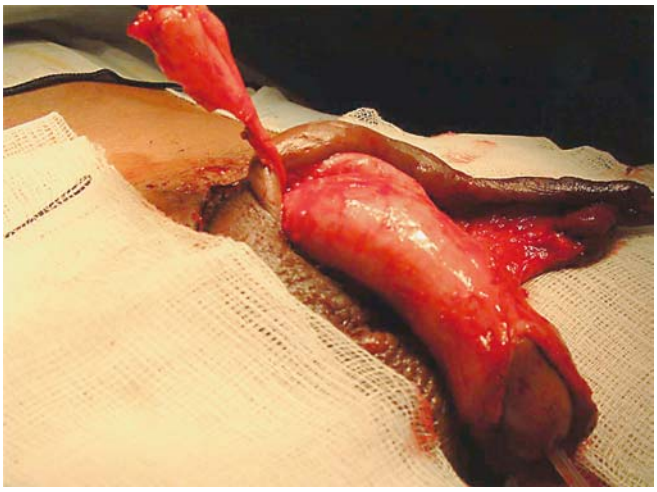

Fig. 1 Photograph showing resection of the lesion with dissection down to the Buck's fascia

Fig. 2 Postoperative picture

References

1. Luis L, Ortega P, Paez A, et al. (2002) Cavernous lymphangioma of the prepuce. Br J Urol 28:138–139
2. Sadikoglu B, Kuran L, Ozcan H, et al. (1999) Cutaneous lymphatic malformation of the penis and scrotum. J Urol 162:1445–1446
3. Enzinger FM, Weiss SW (1995) Tumors of lymph vessels. In: Enzinger FM, Weiss SW (eds) Soft tissue tumors, 3rd edn. Mosby, Philadelphia, p 683
4. Bauer BS, Kernahan DA, Hugo NE (1981) Lymphangioma circumscriptum. A clinicopathological review. Ann Plast Surg 7:318
5. Feins N (1998) Lymphatic disorders. In: O'Neill JA Jr, Rowe MI, Grosfeld JL, Fonkalsrud EW, Coran AG (eds) Pediatric surgery, 5th edn. Mosby, St. Louis, pp 1973–1981
6. Demir Y, Latifoglu O, Yenidunya S, Atabay K (2001) Extensive lymphatic malformation of penis and scrotum. Urology 58:105–106