CASE REPORT

Pilonidal sinus cyst of the penis: a rare manifestation of a common disease

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SUMMARY

Pilonidal sinus is a chronic inflammatory condition owing to the subcutaneous trapping of hair. Most commonly it is found in the sacrococcygeal region (natal cleft) but rarely it is found on the penis with very few cases reported in the literature worldwide. We are reporting a case of a pilonidal sinus growing on the distal penile shaft with the sinus opening to the mucosal layer of the foreskin, in a young and fit patient. The cyst was removed with a circumcision and found to contain hair. This was confirmed by histology as a pilonidal sinus cyst.

BACKGROUND

It is a rare presentation of common disease. Pilonidal sinus is usually found in the natal cleft (sacrococcygeal region) and this is an unusual site for presentation.

CASE PRESENTATION

A 19-year-old fit Caucasian man who is slim and not hairy, presented to our urology outpatient clinic with a long-standing swelling at the distal penile shaft for more than a year. The patient was not circumcised. The swelling occasionally gets inflamed and increases in size with discharge to a small opening beneath the foreskin at the coronal sulcus. On examination, a smooth round mobile subcutaneous swelling could be easily felt at the distal shaft of the penis. The foreskin was normally retractable to reveal the swelling projecting beneath the foreskin with a small sinus at the coronal sinus (figure 1).

DIFFERENTIAL DIAGNOSIS

A differential diagnosis for any penile mass in this region will generally come under the following categories:

- ▶ *Benign non-cutaneous lesions:* retention cysts, congenital/acquired inclusion cysts, syringomas and neurilemmomas.
- ▶ *Benign tumours of the supporting structures:* angioma, fibroma, neuroma, lipoma and myoma.
- ▶ *Penile masses and deformities, or pseudotumors:* pyogenic granuloma, phlebitis, lymphangitis, angitis and early or atypical Peyronie's disease.
- ▶ *Malignant tumours:* Kaposi's sarcoma and squamous cell carcinoma.

TREATMENT

The cyst was excised as a day case with a coronal incision and was taken out with the foreskin using a standard circumcision (figures 2 and 3). Opening the cyst in theatre, it was found to contain hair and keratinous smegma. The cyst was sent for histopathology which showed tissue containing a focus composed of dense mixed inflammatory cells which are seen surrounding shafts of hair along with granulation tissue.

OUTCOME AND FOLLOW-UP

The patient made a good recovery and has had no symptoms since excision.

DISCUSSION

Introduction

The term pilonidal sinus or cyst was first used in 1880 by Hodges to describe any subcutaneous sinus containing hair. Its Latin origin is derived from words *pilus* (a hair) and *nidus* (a nest). Most commonly it is found in the sacrococcygeal region but has been also found in other areas such as the interdigital cleft, perineum, umbilicus, amputation

Figure 1 Picture of pilonidal sinus cyst in theatre.

Figure 2 Picture of penis postcircumcision (dorsal view).

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Figure 3 Picture of penis postcircumcision (ventral view).

stumps, breast and other regions of friction/hair growth in the body.¹

Discussion

The theory on pathogenesis of pilonidal sinuses is that it is an acquired pathology.^{2–3} Mechanical forces lead to hair being pushed beneath the skin causing inflammation and infection leading to cyst formation. A sinus will then form to drain the suppuration. In the penis, although rare, the theory of formation is that the coronal sulcus acts as a cleft where the hair accumulates and is pushed into the shaft of the penis by mechanical force between the prepuce and glans penis.^{1,4}

Although the penile shaft may contain hair, our patient was neither hairy nor obese and had no phimosis. He denied shaving the penis before. Few similar cases were found to be reported in the recent literature as rare incidences. Al Chalabi *et al*⁴ reported a 24-year-old man with severe mental illness with a year history of recurrent ulcerating round lump on the penile shaft.⁵ Two other cases were reported by Chikkamuniyappa *et al*. The first was a 42-year-old patient with concomitant fistula-in-ano, while the second was a healthy 24-year-old patient. Both had phimosis with a swelling beneath

the foreskin. Another 61-year-old man was reported by O'Kane *et al*⁶ who presented with an ulcerating lump on the distal penis with phimosis. In all of the cases reported above, patients were uncircumcised with histopathology examination showing the same classical picture of inflammatory tracts lined with granulation tissue, containing nests of hair and keratin material consistent with a pilonidal sinus cyst.

Learning points

- ▶ Although it remains rare, a pilonidal sinus may still present in other places than the natal cleft including the penis.
- ▶ Pathogenesis of pilonidal sinus in any location on the body is similar.
- ▶ Treatment for pilonidal sinus regardless of location is simple excision with primary closure.

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Competing interests None.

Patient consent Obtained.

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