Unexpected location of pilonidal sinuses

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Summary

Pilonidal sinuses usually occur in the sacrococcygeal area in young men, and occasionally can be found in other ectopic sites. We present a retrospective case review on unusual locations of pilonidal sinuses in the past 4 years. The lesion sites were as follows: one on the penis, two on the scalp, two on the abdomen, one on the neck, two in the groin and two in the axilla. Abdominal and penile lesions are uncommon, but the other locations reported are unusually rare. To our knowledge, the groin has not been reported previously as a site of a pilonidal sinus, although the histological appearance of hidradenitis suppurativa may well resemble it. When trying to clarify the pathogenesis of these occurrences, we found that recurrent hair removal was a common characteristic of the patients we contacted, and this may have been the initiating trauma.

Pilonidal sinuses are found most often in the sacrococcygeal area in young men. These cysts are considered to be a result of excessive and repetitive trauma. Abscesses, cellulitis and fistulas, and on rare occasions squamous cell carcinoma may result. Pilonidal cysts have occasionally been reported in other locations and may also be related to repeated trauma.1

Several such cases have been examined in our pathology department over the past 4 years. We describe the clinical and pathological features of pilonidal sinuses located at atypical body sites and discuss the possible diagnostic and pathogenic implications.

Report

Over the past 4 years, unusual locations of pilonidal cysts were noted by one of us (LO), hence we reviewed all pathology reports of pilonidal sinuses seen in our department to identify additional cases with ectopic location. The diagnosis was confirmed by our dermatopathologist (EC). Genuine pilonidal sinuses or cysts had to show one or both of the following histological features: sinuses (sometimes with hair seen protruding from a small opening), and a sinus tract that may extend from the opening and was lined by inflamed granulation tissue (hairs located within the dermis or the subcutaneous area elicit a foreign-body reaction). A candidate case was excluded if both hairs and sinus tracts with inflamed granulation tissue were absent.

In total, 10 cases (5 men, 5 women) of typical pilonidal sinuses at atypical body sites were accepted as genuine, and we were able to contact 6 of them. The characteristics of the patients and the sites are detailed in Table 1. Of the six patients we contacted, five reported regular hair removal in the relevant area: three patients used a hand razor, one used an electric razor, and the fifth (patient 10) used wax. Patient 7 reported a recurrence 15 months after the first occurrence, which was not treated surgically. No recurrence was noted in the remaining cases.

Pilonidal sinus has rarely been described in parts of the body other than the sacrococcygeal area and may be confused with the diagnosis of hidradenitis suppurativa (HS) or dissecting cellulitis. HS was considered in the cases that had axillary and inguinal involvement. However, the lesions were not painful and were not accompanied by a debilitating condition. They did not
lead to psychological problems and recurrence was seen only with one axillary lesion. Hair was always present within the lesions, and therefore we believe that the axillary and inguinal cases were indeed cases of pilonidal sinus. Histology compatible with folliculitis is usually the case with HS rather than appocrinitis, in which it is uncommon. We believe that in some cases, a pilonidal sinus is part of the pathology of HS.

We considered the diagnosis of dissecting cellulitis in two of our cases involving the scalp. However, pain was not a feature in our patients, and the condition did not present as pustular nodules, showed no progression and did not recur to result in scarring alopecia. The two cases involving the scalp are therefore most consistent with pilonidal sinuses.

Penile pilonidal sinus, as seen in our first case, is rare and most often situated in the foreskin. It has been suggested that the penile coronal sulcus represents a cleft in which hair accumulates and may form a pilonidal sinus. In our case, the pilonidal sinus was situated in the mid shaft of the penis. The patient was circumcised and developed a pilonidal sinus at a penile site, which has not previously been described. No evidence of actinomyces was found.

Pilonidal sinus of the scalp is rare. One of our two patients with pilonidal sinus at this site was a young Ethiopian man and the sinus was associated with repeated shaving of his hair. In the second patient, the cyst seemed to adhere to the temporal fascia and showed a marked granulomatous reaction. Pseudofolliculitis is a common problem seen in shaved areas of curly hair and may result in a pilonidal sinus.

Pilonidal sinuses of the groin have not been previously recorded, to our knowledge. The clinical diagnosis was HS in one of our patients and a sebaceous cyst in the other. Hair removal by waxing or shaving may result in pseudofolliculitis. Similar histology has been described in cases of HS.

Axillary pilonidal sinuses are also very rare. Previously reported cases were non-hirsute healthy women, aged 17–30 years. The lesion has been attributed to friction or suction, due to movements of the arm. Other factors mentioned are shaving, minor infections and maceration. Both patients gave a history of axillary shaving.

Abdominal pilonidal sinus has been previously reported at an umbilical or peri umbilical location only. At this site, this condition involves predominantly young men with abundant body hair, a deep navel and poor personal hygiene. Our two patients had abdominal pilonidal sinuses unrelated to the umbilicus. The 32-year-old woman presented a ‘suprapubic abscess’, and she had shaved this area. The second patient was a young man with a lower abdominal midline lesion.

The trauma of shaving probably underlies the development of pilonidal sinus in most of our cases. To our knowledge, only one patient of the six with a follow-up had a recurrence after the surgical excision. Assuming that the pathogenic mechanisms are similar in sacrococcygeal and ectopic pilonidal disease, the recurrence of one lesion is not surprising.

The histological features of pilonidal sinus may be found in cutaneous lesions that are not considered clinically as the ‘typical sacrococcygeal’ pilonidal sinus and should be considered in the diagnosis of such lesions. Local repeated minor trauma to hairy areas is probably the main pathogenic mechanism.

References