

A Rare Occupational Disease of Hair Dressers: Interdigital Pilonidal Sinus

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Abstract

Interdigital pilonidal sinus is a rare occupational disease related to work with short hair. Hair dresser's disease is the interdigital pilonidal sinus encountered in male barbers. A case of pilonidal sinus in the interdigital web is reported. We performed surgical excision and primary closure. There were neither complications nor recurrence in the third month after excision. We propose that surgical excision is inevitable and that any primary treatment can improve the patients' postoperative comfort. Thus, primary closure or closure with a flap, instead of secondary healing, should always be the first choice of treatment for a defect due to excision of an interdigital pilonidal sinus.

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Key words: pilonidal sinus, interdigital web space, hairdresser, barber

Introduction

Interdigital pilonidal sinus is a rare occupational disease related to work with short hair. When a interdigital pilonidal sinus develops in male barbers, it is known as hairdresser's disease^{1,2}. The disease was first described in 1942 by Templeton and is histologically defined as a foreign body granuloma³. However, a similar condition has also been reported in dog groomers^{4,5}. Sheep shearers and cow milkers are also reported to have from similar diseases⁶ known as "shearer's disease" and "milker's granuloma," respectively⁷. More than 50 cases of interdigital pilonidal sinus have been reported in the English-language literature, but fewer than 15 cases of hairdresser's disease or syndrome have been

reported¹.

Interdigital pilonidal sinus is believed to be caused short hair that penetrates the soft interdigital skin and leads to formation of a sinus and later a cyst^{1,2,8}. The accumulation of short hairs deepens the sinus, aggravates the infection, and culminates in a classical pilonidal sinus. The main symptom is purulent discharge with pieces of hair from the infected cyst⁷. The disease may also be associated with lymphadenitis⁹.

The interdigital pilonidal sinus occurs in non-hair-bearing areas and does not contain the patient's own hair, in contrast to pilonidal sinuses in the sacrococcygeal region¹⁰, umbilicus¹¹, chest wall¹², anal canal¹³, ear¹⁴ or scalp¹⁵.

We present a case of an interdigital pilonidal sinus in a barber and describe its treatment by excision

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Fig. 1 Preoperative view of the patient. Black arrow indicating the external orifice of the cyst.



Fig. 3 Intraoperative view of the cyst. Short pieces of hair can be seen within the cyst.



Fig. 2 Intraoperative methylene blue injection into the cyst



Fig. 4 View of the patient 3 months after excision.

and primary closure.

Case Report

A 28-year-old male hairdresser presented with a 3-month history of recurrent infection in the third web space of the right hand. (**Fig. 1**) He had been a hairdresser for 16 years. The margins of the cyst were determined by means of injection of methylene blue from the external opening of the sinus (**Fig. 2**). We then performed surgical excision under local anesthesia. Multiple hairs of different color were seen intraoperatively (**Fig. 3**). After excision, the defect was closed primarily. The patient was followed up daily for 2 weeks in the outpatient clinic, and no complications were seen. The condition did not recur during the next 3 months, and the patient has continued to work as a barber (**Fig. 4**).

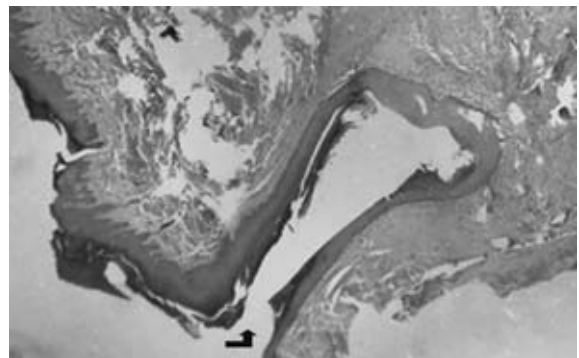


Fig. 5 Histological appearance of the lesion (hematoxylin-eosin, $\times 10$). The arrow indicates the orifice of the pilonidal sinus. The sinus tract surrounded by keratin and benign squamous epithelium and containing acute and chronic inflammatory cells is visible.

Histological examination of the specimen revealed a sinus tract surrounded by keratin and benign squamous epithelium and containing acute and chronic inflammatory cells (**Fig. 5**).

Discussion

The interdigital pilonidal sinus of the hairdresser was first described by Templeton in 1942³. Although interdigital pilonidal sinus has never been reported in hairdressers for women, it has been reported in female hairdressers. Only the male type of hair is sharp, thick, and stiff enough to penetrate the epidermis⁷. Although the number of women working with male hair has recently been increasing worldwide, traditional male barbers comprise the main patient population.

There has been no consensus regarding treatment of the disease. In 1955 Powell reported that conservative measures were ineffective¹⁶. Antibiotic treatment was described to be useless unless combined with surgical intervention¹⁷. Most authors have agreed that excision of the cyst is curative²⁷. Primary closure is the preferred method of wound management and results in a less obvious scar than does secondary healing⁷. We have used a rotation flap to repair the defect formed after excision of a cyst in the third interdigital space of one patient. We also performed preoperative fistulography in the same patient to define the margins of the cyst accurately, but in the present case fistulography was not done because we believed it would not be more informative than methylene blue injection about the margins of the cyst¹. If the preoperative diagnosis of pilonidal sinus is clinically obvious and if there is no evidence of the infection having spread to other parts of the hand, we suggest that fistulography is not necessary and methylene blue injection alone might suffice.

The main concern in any case of pilonidal sinus is recurrence. Any treatment for interdigital pilonidal sinus might not prevent recurrence. Adams et al. have claimed that surgical excision might be neither curative nor preventive of recurrences in all cases¹⁸. Excision and healing with secondary intention are reported to decrease recurrence rates but have the disadvantage of prolonged recovery¹⁹. We believe that excision is inevitable for interdigital pilonidal sinus. We propose that any primary treatment can improve the patient's postoperative comfort. Thus, primary closure or closure with a flap should always be the first choice of treatment for a defect formed

after excision. Additionally, prevention is the most effective way of treating a disease. The recurrence of the hairdresser's disease can also be prevented by wearing gloves and obeying the rules of hygienic during work.

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