

# Pilonidal Sinus of the Scalp: a Case Report and Review of the Literature

Olcay Ak Nalbant<sup>1</sup>, Erdem Nalbant<sup>2</sup>

<sup>1</sup>Laboratory of Pathology, Manisa State Hospital, Manisa, Turkey

<sup>2</sup>Clinic of General Surgery, Merkez Efendi State Hospital, Manisa, Turkey

## ABSTRACT

A 31-year-old man presented with a twenty-year history of a slowly growing nodule on his scalp in the postauricular area. The lesion was excised and with the clinical and histological findings, it was diagnosed as a pilonidal sinus. The purpose of this review is to report the unusual occurrence of a pilonidal sinus on the scalp and review the literature regarding especially this location.

**Key Words:** Pilonidal sinus, head and neck

Received: 23.10.2009

Accepted: 11.01.2010

## Introduction

Pilonidal sinus is a chronic inflammatory condition associated with the penetration of hair fragments into the skin (1). It tends to occur frequently in the sacrococcygeal area, although rare cases have been described in other sites, including chin (1), neck (2), face (3), nose (4-6), scalp (7-10), supra-auricle area (11), external ear (12), interdigital space (13), and umbilicus (14). The purpose of this paper is to report an extremely rare case of pilonidal sinus of the scalp in the postauricular area, and review the literature regarding especially this location.

## Case Report

A 31-year-old man presented with a 20-year history of a slowly growing nodule on his scalp of postauricular area. On physical examination, the patient had a 2x2-cm, minimally mobile, slightly tender subcutaneous nodule. There was an orifice on the lesion, but intermittent discharge of pus from the orifice was not defined. There was no trauma history and he had no history of hair transplant, and he did not wear glasses.

A flap of skin was elevated and a spherical collection of hairs was seen. The lesion was surgically excised and sutured primarily (Figure 1). Specimens (Figure 2a) were fixed in neutral formaldehyde, embedded in paraffin, and stained with haematoxylin and eosin.

Histologically, hair shafts were embedded in the granulation tissue covered with benign squamous epithelium. There were a number of scattered foreign body giant cells, acute/

chronic inflammatory cells around the hair shafts (Figure 2b). A cyst wall with associated follicles and adnexal structures were not seen. Based on the clinical and histological findings, the case was diagnosed as a pilonidal sinus.

The patient has been well with no recurrence over a 5 month follow-up since surgery.

## Discussion

Pilonidal sinus refers to any subcutaneous sinus which contains hair (6). The aetiology of pilonidal sinus remains unclear (1, 2, 11). There are two main theories regarding its aetiology; acquired and congenital (3). The majority of opinions favour an acquired pathogenesis, with hormones, trauma, friction and infection, all having a role (2).

In general, at least three conditions need to be fulfilled for a pilonidal sinus to occur: first is hair in the skin and, second, some kind of wrinkled skin, such as the natal cleft or a scar. The third condition is a mixture of hormonal and hygienic problem (15).

All cases have not been explained by acquired causes. If there was no trauma history and the lesion was present for a long time or since birth, congenital causes should be thought of in the aetiology.

Pilonidal sinus is typically encountered in the sacrococcygeal region, but rare cases have been described at other sites (1-14). There are extremely rare cases at head and neck localizations in the literature. In this paper, we present most of all the cases and their features at head and neck localization in the literature (Table 1).

**Table 1.** Literature review of pilonidal sinus of head and neck localization

Author's	Year	Age, Gender	Localization	Aetiological factor	
				Acquired (Trauma)	Congenital
Oudit D et al. (1)	2005	31, M	Chin	+	
Meher R et al. (2)	2006	24, M	Neck	+	
O'Sullivan MJ et al. (3)	2000	30, M	Face	+	
Llambrich A et al. (4)	2006	53, M	Nose		+
Schache DJ et al. (5)	1989	13, M	Nose		+
Paulose KO et al. (6)	1989	23, M	Nose	+	
Chiu MW et al. (7)	2008	70, F	Scalp	+	
Kosaka M et al. (8)	2007	4, M	Scalp	+	
Moyer DG (9)	1972	5, M	Scalp	+	
Tromovitch TA (10)	1972	Unknown	Scalp	+	
Yokoyama T et al. (11)	2007	32, M	Supra-auricle area	Unclear	
Woodward WW (12)	1965	27, M	External ear	Unknown	
Present case	2009	31, M	Scalp (post-auricular area)	Unclear	

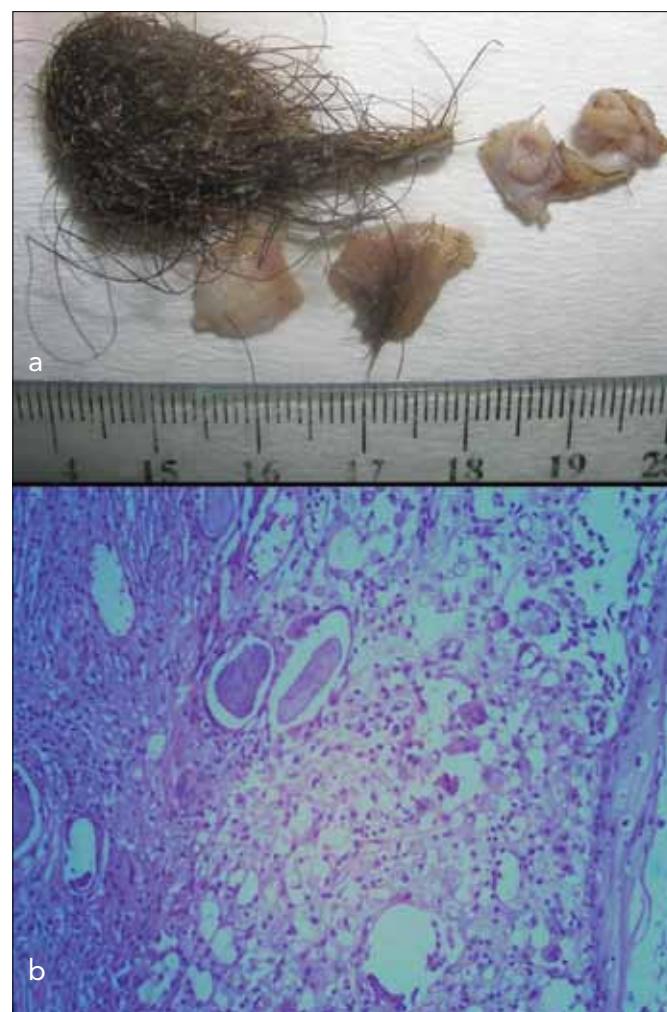
**Figure 1.** The lesion was surgically excised and sutured primarily

If hair is the first factor for pilonidal sinus, why do we not see more pilonidal sinus cases in the scalp? Scalp tissue is dry and rough, but, if there is trauma, broken hair easily drills into macerated skin. In the table, all cases of pilonidal sinus of scalp had trauma history. In the present case, there was no trauma history and, the lesion had been present for a long time, approximately 20 years. So, the essential aetiological factor for this case is unclear.

Although this lesion is rare in the scalp, it should be included the differential diagnosis of subcutaneous head and neck nodules.

#### Conflict of Interest

No conflict of interest was declared by the authors.

**Figure 2.** (a) Macroscopy specimens of the lesion. (b) The hair shafts were embedded in the granulation tissue covered with benign squamous epithelium (H&E; x200)

## References

1. Oudit D, Ellabban M, Eldafl D, Crawford L, Juma A. Pilonidal sinus of the chin. *Plast Reconstr Surg* 2005;115:2153-4. [\[CrossRef\]](#)
2. Meher R, Sethi A, Sareen D, Bansal R. Pilonidal sinus of the neck. *J Laryngol Otol* 2006;120:e5. [\[CrossRef\]](#)
3. O'Sullivan MJ, Kirwan WO. Post-traumatic pilonidal sinus of the face. *Br J Dermatol* 2000;143:1353. [\[CrossRef\]](#)
4. Llambrich A, Rocamora V, García de la Torre JP, Sánchez MC. Pilonidal sinus of the nose. *Eur Acad Dermatol Venereol* 2006;20:1004-5.
5. Schache DJ, Stebbing A, Rees M. Congenital pilonidal sinus of the nose. *Aust N Z J Surg*. 1989;59:511-2. Comment in: *Aust N Z J Surg* 1992;62:497. [\[CrossRef\]](#)
6. Paulose KO, al Khalifa S, Raj SS, Saeed T. Pilonidal sinus of the nose. *J Laryngol Otol* 1989;103:1210-3. [\[CrossRef\]](#)
7. Chiu MW, Abrishami P, Sadeghi P. Letter: pilonidal cyst of the scalp. *Dermatol Surg* 2008;34:1294-5. Epub 2008 Jun 27.
8. Kosaka M, Kida M, Mori H, Kamiishi H. Pilonidal cyst of the scalp due to single minor trauma. *Dermatol Surg* 2007;33:505-7. [\[CrossRef\]](#)
9. Moyer DG. Pilonidal cyst of the scalp. *Arch Dermatol* 1971;105:578-9.
10. Tromovitch TA. Pilonidal cysts of the scalp. *Arch Dermatol* 1972;106:601. [\[CrossRef\]](#)
11. Yokoyama T, Nishimura K, Hakamada A, Isoda KI, Yamanaka KI, Kurokawa I, et al. Pilonidal sinus of the supra-auricle area. *J Eur Acad Dermatol Venereol* 2007;21:257-8.
12. Woodward WW. A pilonidal sinus of the ear. *Aust N Z J Surg* 1965;35:72-3. [\[CrossRef\]](#)
13. Uysal AC, Alagöz MS, Unlü RE, Sensöz O. Hair dresser's syndrome: a case report of an interdigital pilonidal sinus and review of the literature. *Dermatol Surg* 2003;29:288-90. [\[CrossRef\]](#)
14. Schoelch SB, Barrett TL. Umbilical pilonidal sinus. *Cutis*. 1998;62:83-4.
15. Doll D, Petersen S. Trauma is not a common origin of pilonidal sinus. *Dermatol Surg* 2008;34:283-4. [\[CrossRef\]](#)