

Laser may reduce recurrence rate in pilonidal sinus disease by reducing captured occipital hair

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Dear editor,

Just recently, the interesting article of Khan et al. on “control of hair growth using long-pulsed alexandrite laser” has been published [1]. Describing results from laser treatment of non-healing wounds following recurrent pilonidal sinus disease (PSD) surgery, cost effectiveness, and disease-free time are compiled. Hair density measurements before and after laser therapy are given, which is quite an arduous task to compile. The author can be congratulated for their efforts. However, minor issues need to be addressed.

Up to now, there is no proof that natal hair is the cause of PSD

Bascom has postulated that folliculitis may be the cause of PSD, but patients almost never complain of inflammation in the gluteal crest. There are women and men who are bald in the natal crest. The interesting question remains: where the hair creating the pilonidal fistula and nest originates from anal [2], vulvar [3], umbilical [4], and interdigital [5] PSD formation lead us to understand that any hair may be causative. Hair may come from other humans [6]—as in barber’s disease—or from other species like dogs and sheep [7, 8].

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Cut hair is a more aggressive intruder than split, broken, or ruptured hair

Especially, cut hair with razor sharp ends may easily intrude into the skin [9]. This is why local razor depilation doubles recurrence rate by enlarging the amount of short cut hair fragments on the skin [10]. Barbers, dog groomers, and sheep shearers sinus are known to be related to their occupation, cutting hair.

Cut hair movement is prone to gravity

Barbers experience hair intrusions at interdigital, back of feet [11], and plantar [12] sites, and this occurs always at the ventral part of their body. Up to today, no single report in literature dealing with an elevated incidence of intergluteal PSD in barbers can be found. Thus, intergluteal pilonidal hair may overtly be grown and cut at the back of a person blighted with this disease. Frequent haircuts are needed to keep hair short. Not too astonishingly though there is massive evidence that in soldiers, a short-haired cohort, incidence is higher [13, 14] when matched to identical, non-military groups [15].

Of course, “netting” of dense natal hair may promote PSD by capturing cut hair falling down, thus enabling a longer contact time for potential injection of the hair fragments into the skin [16]. This is why bathing/showering seems to be advantageous to prevent PSD [17, 18]—as the effect is a shorter skin contact time within the intergluteal fold rather than hygienic considerations [19, 20].

Laser-induced depilation leads to shorter contact time of hair derived from other locations is a reason why laser lowers recurrence rate [21]. The method may well work as primary prevention in hirsute patients in high risk families yet to be identified [17, 22].

In conclusion, studying primary prevention or recurrence prevention with laser depilation in a properly described patient group—either with primary open, or following a Limberg-, Karydakis or Bascom-approach—can give us an interesting insight into the potential of laser depilation. The technique offers advantages as primary prevention since prevention must fulfill basic patient needs such as the possibility for daycare treatment, a painless approach, and a technique which can be applied repeatedly, just to name a few.

Enabling wound closure with laser stimulation and laser depilation is a useful and important, but different issue. These two subjects need to be kept apart.

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