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Pilonidal sinus disease—186 years since Mayo

Pilonidal sinus therapy is a hot topic—and thus recently there has been an upsurge in interest in the therapy of pilonidal sinus disease (PSD), as more than 30,000 operations per year are performed in Germany alone [1]. The incidence of PSD seems to be rising [2], with more studies published, mostly from the Mediterranean region, where Turkey leads the field (**Fig. 1**). This renewed interest also shows a massive shift away from midline closure, as this has proven to be the worst therapeutic option a surgeon can choose for their patient [3]. Without any doubt, Karydakis, Bascom, Limberg, and Dufourmentel are superior in terms of recurrence rate [4, 5], which has been shown to be highly dependent on follow-up time. A low recurrence rate is 1% of recurrence per year of follow-up , and an acceptable recurrence rate is 2% per year of follow-up [6]; thus, 1% recurrence rate per year of follow-up is the new gold standard.

Some interesting aspects of the mechanism of PSD have been unraveled: It seems that short hair fragments from the head may play a role in PSD recurrence [7–9]. Is sweating an important aspect in PSD? An ongoing study will give us results in due time.

The therapeutic spectrum differs worldwide. In Indo-Arab countries, phenol is still popular, which is forbidden in Germany owing to toxicity and teratogenic effects [10, 11]. While other nations advocate the use of primary open treatment less [12]—unless the wound situation dictates its use—it is predominantly applied in Germany, with some inherent disadvantages: high costs for insurance companies, high costs for the employer, and a long healing time. Recently, new methods such as laser and endoscopic treatment have gained attention [13–15], but their value is still to be determined. Surgeons in Germany are still cautious when performing pilonidal plastic surgery as recommended [16] because they fear potential complications. This may be one reason why so-called minimally invasive methods have increased in popularity during the last few years—therapies like Gips's tract surgery and pit picking [17, 18]. Although these may be associated with a higher recurrence rate, some surgeons argue that they are considered a good start for uncomplicated pilonidal disease—and a flap procedure may be used later, if there is recurrence [19].

If we want to escalate therapy depending on clinical aspects, how can we judge which sinus needs which therapeutic tool? Staging systems are emerging, and their evidence is still weak: But do

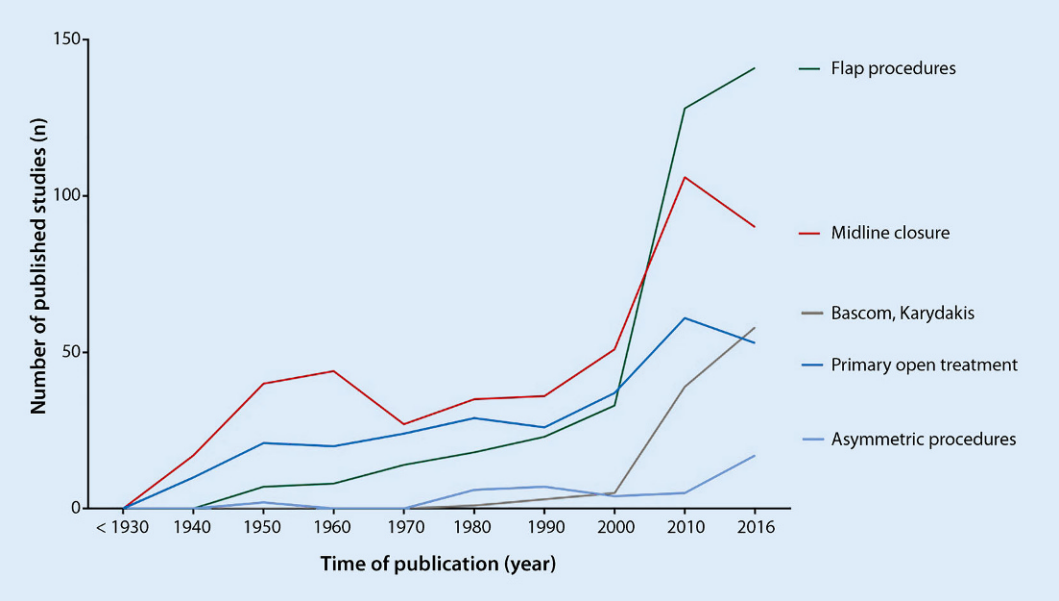

Fig. 1 ◀ Number of studies published on surgical methods applied for PSD since 1930. (Courtesy of Nora Peters, Marburg)

they provide the clinicians with useful information? Is this just gathering data, or is it a real benefit for the patients? There is still some common ground to be found before the use of these systems can be recommended.

Seven high-profile authors from Sweden, Switzerland, Turkey, the United Kingdom, Australia, and Germany have agreed to contribute their knowledge to this Pilonidal Sinus Series, which Alois Fürst initiated.

Who are the contributing authors? Peter Wysocki from Australia writes on primary open treatments, and Asha Senapati from St. Marks Hospital in London gives us a comprehensive overview of common flaps in pilonidal sinus surgery. Ekmel Tezel from Ankara, Turkey, describes current staging systems, and Andreas Ommer (Essen, Germany) was so kind as to compile an overview of the new kids on the block—laser and endoscopic treatment—and their results in the literature. Thomas Baur (Bern, Switzerland) presents the recurrence rates in uncommon surgical procedures for PSD, and Roland Andersson from Jönköping (Sweden) outlines less invasive surgical procedures. Nora Peters from Marburg is giving some informations on costs of PSD therapy—quite interesting in an increasingly cost orientated medical environment. Each author stands their own ground, and thus different aspects as well as common approaches can be identified.

The choice of pilonidal sinus therapy is an ongoing field of interest. Certain ways of prevention may emerge, but other important questions remain:

- Since PSD is related to puberty, there must still be yet undiscovered skin and humoral factors, other than hair strength.
- Why is there a suspected higher incidence in Turkey and other Mediterranean countries, while this disease is not known in Asia and Africa?
- Incidence is high in some families, sometimes with three generations in a row affected by PSD. Is there a co-genetic predisposition other than BMI (not proven yet) and hair strength?
- The incidence of PSD seems to be rising, while recurrence is not. Does this mean we have to think of two different mechanisms between first and recurrent disease?

It seems that 186 years after its first description [20], we are only just beginning to understand the mechanisms of PSD.

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