5- and 10-Year Recurrence Rate Is the New Gold Standard in Pilonidal Sinus Surgery Benchmarking

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Pilonidal sinus disease is a disease of young men that results in prolonged time off from work, its incidence being approximately 1 in 1,000. Now, 129 years after the first description of pilonidal sinus disease, there is a wide range of therapies and still controversy about the management of the condition. The only cure may be surgery, but every new conservative method needs to be thoroughly examined and compared with established methods in terms of aggressiveness and effectiveness. This is the case with phenol treatment of pilonidal sinus disease. First instituted in 1964 by Maurice and Greenwood [1], they found a recurrence rate of 19% after 18 months of follow-up. Twenty-four studies using phenol have been published since then, with patient numbers up to 143, follow-up periods between 1 month [2] and 98 months [3], and a recurrence rate between 9% [4] and 19% [5].

Recurrence rates vary widely and there are some explanations for this inconsistency. Firstly, pilonidal sinus disease is thought to be an acquired disease of hair interrupting the skin integrity, thus forming persisting epithelial tracts around hair. If tracts containing hair are only removed or destroyed partially, remnants will persist in the deeper layers of the skin, acting as a source of recurrent disease. Secondly, success and failure of pilonidal sinus therapy depend on the degree of inflammation of the pilonidal sinus, which is especially true for phenol treatment. Some sinuses present with overt inflammation and

retention, while others may seem silent. From histological evaluation of so-called incidental sinuses we know that every sinus is accompanied by acute, chronic or mixed acute-chronic tissue inflammation, even if it may seem clinically uninfamed [6]. Thus varying degrees of inflammation may bias the effects of treatment, wound healing and recurrence. Thirdly, from recent long-term examinations we know that recurrence rate is a function of time. Pilonidal sinus recurrences may occur from the time of surgery up to 22 years and beyond. Putting this into a time frame, 60% of all recurrences will be seen within 5 years [7]. This has been proven on more than 500 patients, who received long-term follow-up of 2 decades. It is therefore obvious that a very short-term follow-up will result in very low recurrence rate. As a benchmark, the 5- and 10-year recurrence rate is the new gold standard.

The authors of the presented study [8] enrolled 30 consecutive pilonidal sinus patients within 4 months for the study, which makes them a high-volume hospital in terms of pilonidal sinus surgery. They treated them with incision of tracts and the pilonidal cave, adding phenol liquid cauterization, dressing and 1 week's daily follow-up to that therapy. They followed up patient satisfaction and if patients recommended their therapy to fellow patients. Some remarks need to be added to this small study with a 14-month mean follow-up time. Firstly, the results show

that this procedure can be done as an outpatient procedure, with patients being satisfied about the short-term results of this therapy. This is especially important in patients who are afraid and would not accept any surgical therapy because of anxiety. Nevertheless, not only the anxiety but the sinus needs to be treated. The recurrence rate needs to be looked at more closely. Fourteen months is a really short follow-up, and as 60% of all recurrences will be seen within 5 years, approximately 12–15% will be seen within this first year. In other words, the 1-year recurrence rate just shows between 12 and 15% of all recurrences occurring, thus the 5-year recurrence rate may be 3–4 times higher.

How many recurrences do the authors report? They report 4 recurrences out of the 30 patients (13.3%) after 14–16 months of follow-up. If patients were satisfied after 1 year with this 13% recurrence rate, the surgeons should be aware that the recurrence rate may become substantially higher within the next years. This is not proven, as recurrence kinetics were determined in patients treated surgically, and recurrence kinetics in patients treated with phenol might be quite different. It will thus be of

great interest to the scientific community to have a report on the long-term recurrence rate (e.g., 5-year recurrence rate) in these patients.

Some technical remarks need to be made. As pointed out by Schneider et al. [9], it needs to be ruled out before starting the phenol treatment, that there is any connection between the rectum and anal canal to the sinus, as otherwise phenol might cauterize the rectal cave [9]. This can be done by rectoscopy/proctoscopy; if in doubt a cotton swab might be placed in the anal canal and the sinus filled with methylene blue, which then might stain the cotton swab in case of a patent sinus. On the other hand Dogru et al. [3] discovered that crystal phenol might lead to a lower recurrence rate, if compared to 80% liquid phenol. Furthermore, as pointed out by Stansby and Greatorex [10] a good short-time follow-up is just the first step for doing a long-term follow-up in phenol treatment of pilonidal sinus of the natal cleft. We fully agree.

Concluding, this small study [8] may give us valuable information on the 5-year recurrence rate if the follow-up period is extended, as all patients who were operated on had primary pilonidal sinus disease.

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