CASE REPORT

Video-assisted treatment of pilonidal disease, using a combination of diathermy ablation and phenol application

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SUMMARY

Video-assisted diathermy ablation (VADA) and crystallised phenol application (CPA) have been independently suggested as minimally invasive treatment options for sacrococcygeal pilonidal disease (SPD). The failure rates may be 5–33% with either method, and these methods have a longer healing time when used alone. Thus, we combined the two methods to fulgurate the infected inner lining of the sinus after cleaning up the hair and debris, and to identify the anatomy of the pilonidal cavity in its entirety, including its branches and cavities, by video assistance; the ultimate aim was to disperse sclerosing phenol crystals for faster healing and potentially less or no recurrence. This is the first case in the literature that has been treated by combining CPA and VADA. The patient healed within less than a month, with no need for professional wound care, and was free of recurrence at 2-year follow-up.

BACKGROUND

Healing times are faster following any type of surgical closure compared with open healing. Surgical site infection is a problem regardless of the method of closure. Even though off-midline closure offers certain advantages compared with midline closure, recurrence rates are still lower with open healing compared with any primary closure method.^{1–3} However, the open healing method requires an average of 5 weeks of wound care, which discourages certain surgeons and patients from choosing this option.⁴ Our new method may alleviate the wound care burden for the patient, may be easier for the surgeon to perform and may offer less recurrence. We decided to combine the video-assisted diathermy ablation (VADA) and crystallised phenol application (CPA) methods to define a simpler procedure with easy application, and better healing and recurrence rates. The combination of methods was also attractive due to faster recovery and an earlier return to work. This is the first case in a series.

CASE PRESENTATION

A 20-year-old man with a diagnosis of sacrococcygeal pilonidal disease (SPD) was referred to our clinic by his family physician for surgical treatment. The patient's complaint was malodorous discharge from the sacral area. Treatment options were discussed with the patient, who was enthusiastic about a simple method—with no incision—that would allow him to go home on the same day. He had no

other medical problems and had not undergone any intervention for his SPD.

INVESTIGATIONS

A full physical examination showed that the patient was completely healthy, and he did not require any additional laboratory investigations due to his young age.

DIFFERENTIAL DIAGNOSIS

The patient was evaluated for signs of hidradenitis suppurativa and skin lesions in the sacral area, but local examination did not reveal any abnormalities.

TREATMENT

The patient was hospitalised in the morning and taken to the operating room. Under sedation with propofol, 2% lidocaine was infiltrated in a circular fashion around the SPD cavity. The pilonidal cyst had a few external openings 2–3 mm apart. Two pits were combined by cutting the skin bridge between the pits. Visible hair and debris were removed. A rigid millimetric camera ([figure 1](#)) was inserted through the joined pits, and the remaining hair and debris were evacuated through the interventional channel of the camera, using a pair of thin forceps. The cyst was filled with 10% mannitol and a diathermy tip was inserted through the channel. The inner surface of the sinus was fulgurated superficially using diathermy ([figure 2](#)). After confirming that the entire surface was sufficiently burned, crystallised phenol was filled in using a simple plastic funnel, to protect the surrounding skin from chemical burn.

OUTCOME AND FOLLOW-UP

The patient was discharged in the afternoon and followed thereafter. The postoperative period was

Figure 1 Rigid scope used in Video-Assisted Diathermy Ablation (Karl Storz GmbH & Co, KG, Mittelstrasse 8, 78532, Tuttlingen, Germany).

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Figure 2 The EPSiT procedure.

Figure 3 A healed pilonidal sinus with minimal scar formation.

uneventful. The patient was feeling well enough to go to work the next day, and at his third week visit, he was completely healed (figure 3). He was followed for another 24 months, when this case report was written, and no problem was reported and none detected.

DISCUSSION

A perfect method to treat SPD must have a high healing rate, a low recurrence rate and minimal postoperative pain; must

facilitate an early return to work; and must be low in cost. The noticeable surgical scar resulting after skin flap creation might be one reason that patients prefer a non-invasive method. A recent study of the VADA method, which also offers a good opportunity to clean up hair and debris from the SPD cavity under direct vision, reported 3.7% recurrence after 1 year of follow-up.⁵ In contrast, CPA never provides an optimal opportunity to clean up the cavity. If the inner lining of the cyst is not adequately cleaned, and hair and debris are not sufficiently removed, particularly within the side branches, it is not unusual to have failure rates of up to 30%.²

Learning points

- ▶ Video-assisted diathermy ablation (VADA) facilitates effective clean-up of hair and diathermy ablation of the inner lining.
- ▶ Crystallised phenol application (CPA) is an effective non-invasive treatment method offering fast fibrotic healing that is likely to deter bacterial growth and a change in metabolic events within the wound, thus favouring fibrosis and faster healing.
- ▶ Combining the VADA and CPA methods is therefore promising to achieve faster healing as well as a lower recurrence rate.
- ▶ A prospective series was initiated after this case, to determine the safety and efficacy of this combination.

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Competing interests None declared.

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