

Use of a Dorsal Digital Perforator Flap after Total Cyst Resection, Osteophyte Resection, and Synovia Intraarticular Curettage in the Treatment of a Large Mucous Cyst

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Some studies have found that it is useful to treat a mucous cyst of the finger by osteophyte resection and synovia intraarticular curettage without using a flap.¹⁻³ However, it is still unknown whether this method reduces both the recurrence of mucous cyst and the incident rate of nail deformity and infection. In addition, in the case of a large mucous cyst, it is unclear whether wound healing after surgery by this method is acceptable to patients from the perspective of the cosmetic appearance.

The author experienced a 61-year-old right-handed woman with a mucous cyst on her left middle finger at the ulnar side of the distal interphalangeal (DIP) joint. DIP joint motion was painless. However, the mucous cyst was large, the skin over it was thinning, and the nail was deformed. An x-ray showed mild osteoarthritis and an osteophyte on the same side of it in the DIP joint. The author fully explained the etiology and various methods for treating the cyst, and the patient requested total resection because of several recurrences of the cyst after aspiration and the cosmetic appearance of both the cyst and the nail.

The surgical procedure involved total resection of the large mucous cyst, followed by osteophyte resection and synovia intraarticular curettage using the conventional method, after which the defect was covered with a dorsal digital perforator flap (Fig. 1). The complete flap survived after the operation, and active exercises were started after the DIP joint had been fixed by a finger splint for 2 weeks.

At 3 years after the operation, the active range of motion for the DIP joint is 0 degrees/70 degrees. The patient never has any pain while moving the DIP joint, has no problems in activities of daily living and no nail deformity or recurrence, and has accepted the cosmetic result (Fig. 2).

It is easier to perform both osteophyte resection and synovia intraarticular curettage after total cyst resection because a wide field of view is required for the

intraarticular operation. In addition, the pressure on the nail matrix can be completely treated. However, the defect has to be covered with a flap if the cyst is large and the skin is thinning. Various flaps have been described,⁴ but the author thinks that the dorsal digital perforator flap the author previously reported in detail⁵ is more useful. Of course, safer flap elevation requires using a loupe and microsurgical techniques and attaching soft tissue around the perforator, rather than just the perforator. However, this flap has good circulation, is less invasive, can reach the base of nail and be elevated relatively easily at the distal area from the proximal interphalangeal joint, and does not require a skin graft. There may be limitations to its suitability depending on the contrast of the surgical scars, but the author proposes that this method is more useful and acceptable for patients, even in the case of a large mucous cyst of the finger.

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DISCLOSURE

The author has no financial interest to declare in relation to the content of this article.

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Fig. 1. Preoperative view. The skin over the large mucous cyst in the left middle finger was thinning, and the nail was deformed. A dorsal digital perforator flap was designed. The cross mark indicates the pedicle of the dorsal perforator of the digital artery.

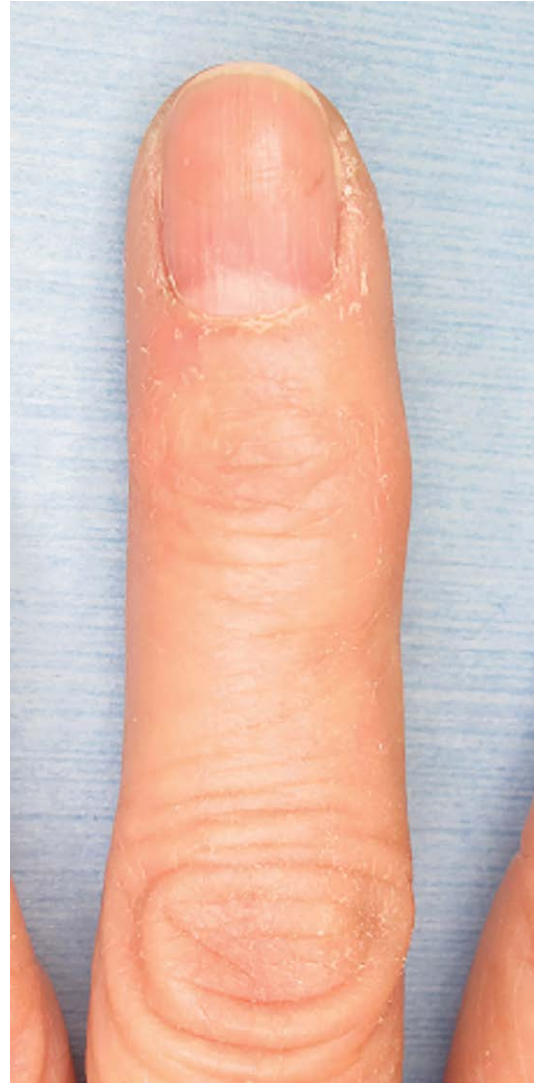


Fig. 2. Postoperative view. A dorsal digital perforator flap was used after total cyst resection, osteophyte resection, and synovia intraarticular curettage. The cosmetic result was acceptable, and there was no recurrence or nail deformity at 3 years after the operation.