Chronic open infective lateral malleolus bursitis management using local rotational flap

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NO CONFLICT TO DISCLOSURE

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My disclosure is in the Final AOFAS Mobile App.
I have no potential conflicts with this presentation.
Introduction

- **Bursitis** is a common disease in the orthopedic field with pain, irritation and discomfort as main symptoms.

- **Lateral malleolus bursitis** is usually caused by repetitive stimulation, trauma, and inflammatory diseases.

- **Conservative treatment** is the mainstream of the treatment and includes the aspiration, non-steroidal anti-inflammatory drugs, compressive wrap, and steroid injection.

- However, sometimes chronic bursitis is developed and **complicated with infection** then open wound could occur.

- Open wound of infective lateral malleolus bursitis is hard to be treated because of the ankle condition (thin soft tissue).

- There are some options for the skin coverage (skin graft, free flap etc.), but long time of healing, or too bulky soft tissue could make later problems
Purpose

- In this study, we introduce cases that using **sinus tarsi rotational flap** that is uncommon technique to treat chronic open infective lateral malleolus bursitis.

Surgical technique

- First debrided all the infective tissues
- Sometimes, applied the negative pressure wound closure system under local anesthesia
- After enough granulation developing, the local rotational flap was done under general or spinal anesthesia.
- Local rotational flap was detached with curved skin incision at sinus tarsi beside open wound.
  - Careful not to injure superficial peroneal nerve.
  - Donor site was managed with split thickness skin graft.
  - Tie over dressing on skin graft site (keep for five days)
Cases 1. Male/73 patient who had chronic ulcer at right lateral malleolus and delayed wound healing due to underlying diabetes.
Rotational flap after 2 weeks VAC

2 weeks after rotational flap: well healed
Case 2. Male/61 patient who had the wound dehiscence at left lateral malleolar bursa after direct wound closure.

Initial visit after 2 week wound Management at other clinics
5 days after rotational flap
We do the flap surgery
after 1 week VAC Tx.

3 weeks after surgery

Last f/u: 6 weeks after surgery
Some contracture on STSG site
Case 3. Male/87 patients who had non-healing open wound at right lateral malleolus because of decreased circulation due to underlying peripheral arterial occlusion disorder. In order to improve circulation, angioplasty was done before the rotational flap.
Post op 1 day,
Some venous congestion occurred

POD 2 weeks, wound healed with clot

POD 4 weeks

POD 6 weeks, scar healing
Discussion

- Debridement of infective tissue and coverage of open wound with fresh tissue are very important to treat open infected wound.
- There are many procedures to coverage open lateral malleolus bursitis such as direct closure, skin graft and local and free flap.
- **Our technique using local rotational flap** has some advantages that includes simple procedures, high flap survival rate, short time for wound healing and no-bulkyness of soft tissue.

Conclusion

- Local rational flap is good method to get healing and coverage of chronic open lateral malleolus bursitis.
Reference

