

## Hard to heal lower limb ulcers in surgical practice

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Chronic lower limb ulcers are hard to heal in personal, social and financial aspect. There are three general types of lower limb ulcers: diabetic foot, venous ulcers and pressure ulcers. All of them require sophisticated dressings and therapies to achieve healing. Collagen injection therapy is one of these measures.

Collagen presents a variety of biochemical and physical properties important for each phase of wound healing.

We present three cases of diabetic foot ulcers supported with collagen injection therapy.

A young patient with thrombophilia presented with diabetic foot ulcer under great toe. He slowly healed on iodine dressings. We opted for activated platelet rich fibrin dressing applied only once and collagen injection therapy every fourteen days. His ulcer healed in twelve weeks.

Our second patient presented with Charcot foot and an ulcer under left medial malleolus area. After a course of negative wound pressure therapy, the ulcer was ready for closure but there were not enough healthy tissues to perform this. Collagen injection

therapy was introduced weekly along with dressings. Wound closure was achieved in 6 months since the first presentation.

The third patient presented with necrotic ulcer over lateral aspect of fifth metatarsal head. Healing of the wound was impaired due to his late stage of renal insufficiency and advanced neuropathy. We decided to support his standard therapy with weekly courses of collagen injections until full wound closure 4 months after the first presentation.

In conclusion: collagen injection therapy plays an important supportive role in lower limb ulcers treatment.

### References

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