

The use of Timolol and alginate in a variety of chronic wounds unresponsive to traditional therapies.

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Introduction

- Timolol has shown to be effective in countering the increased inflammatory response in wounds
- Timolol has increased keratinocyte migratory speeds in wounds and facilitates in modulating fibroblast migration and proliferation.
- Timolol has been effective in wound contraction and enhances vascular permeability and amplifies VEGF secretion
- Timolol has been shown to modify MMP mediation and has an anti-virulence effect

Method

- Topical Timolol maleate 0.5% was installed, 1 drop every 2 cm of wound edge daily.
- When applicable calcium alginate was placed into the wound bed and then covered with a border dressing.
- Wound were debrided with each visit.
- Wounds were monitored on a weekly or bi-weekly basis.
- Photos and measurements of the wound were obtained.
- Patients were followed until complete closure of the wound

Conclusions

- Early studies of Timolol's positive effect in wound healing started in the 1970's and has continued today.
- Timolol is a promising therapeutic option in wound healing and has a positive impact on the phases of wound healing.

References

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- Mancini, R. Topical timolol enhances surgical wound healing in the lower portion of the leg in older patients with comorbidities: A retrospective review. Jada. 2022; 87(3): 660-663

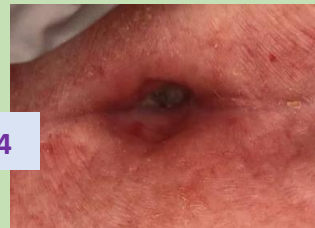
Case Report #1

- A.D. is a 57-year-old female with PMH of invasive ductal breast cancer bilateral, treated with a lumpectomy (4/24/24) and chemotherapy of doxorubicin/cyclophosphamide. She did not have complete healing from mastectomy of the right breast. She was consulted on 7/9/2024 and her treatment consisted of flushing site with Dakin's or Vashe and using silver contact or hydrofera blue to pack the site.
- She was making minimal progress to the area with the depth that reduced from 3.5 to 1.4cm over 5 months.
- Daily Timolol with alginate packing was started on 11/12/2024 with complete closure and contraction of the wound in 21 days.

Case Report #1 photos



7/09/24



11/19/24



12/03/24

Case Report #2

- H.S. is a 50-year-old female with no PMH who underwent a bilateral breast lift on 10/8/2024. Shortly after the procedure the suture line became dusky, so she had 8 Hyperbaric treatments at 2 ATA (non-consecutive). She then had a debridement of both breasts with FTSG on 11/12/2024. Left side with less than 30% take and complete failure of the right side.
- Consult with wound clinic on 12/2/2024. Hydrofera blue to both breasts initiated.
- 1/8/2025 tract noted on proximal aspect of right breast by the patient. On 1/21/2025, follow up visit, the patient was flushed with Dakins and antibiotics started (Ciprofloxacin) and then doxycycline was added. Tract was 2.5cm depth.
- 1/27/2025 timolol started into the tract site with depth at 2.0 cm. Timolol was done daily by the patient.
- 2/11/2025 15 days until complete closure and contraction of the tract.

Case Report #2 photos



1/27/25



12/02/24



2/11/25

Case Report #3

- T.R. is a 65-year-old male with PMH of Diabetes who had a Left BKA done on 8/25/2023 due to Charcot deformity and chronic refractory osteomyelitis. He also has a Charcot deformity of the right foot and history of non-healing wounds to the right plantar foot.
- He presented to the wound clinic on 8/22/2024 with a right plantar wound and callous with fluid collection proximal to the wound site. Depth was noted at that time of 0.5cm and the patient was started on Timolol and calcium alginate to the wound site daily.
- Complete closure was obtained on 8/26/2024 and patient has had no further wounds to the plantar aspect of the right foot.

Case Report #3 photos



8/22/24



8/26/24