



# Application of topical dessicating agent in dehiscent complex wounds after cardiac surgery

GONÇALVES, VIVIANA<sup>1</sup>

1. TISSUE VIABILITY NURSE OF CARDIOTHORACIC SURGERY ; MSNs - UNIDADE LOCAL DE SAÚDE SÃO JOÃO, PORTO, PORTUGAL

Late dehiscence of a surgical wound is a problem due the consequences it entails. When the dehiscence presents devitalized tissue that is difficult to debride, the treatment is prolonged and may cause more complications.



The application of topical dessicating agent (TDA) with active ingredient methane sulfonic acid, a chemical debridement is an effective tool in the debridement of these complex wounds, combining the application of local anesthetic for better pain control. After cardiac surgery, patients become hypocoagulated, increasing the difficulty in removing devitalized tissue in dehiscent wounds.



Dehiscence of sternotomy (50 days after surgery)



TDA application



After 7 days with NPWT



1 month after TDA application



Dehiscence of sternotomy (50 days after surgery)



TDA application



After 7 days with SoC



3 weeks after TDA application

After instillation of local anesthetic, TDA was applied, in which the reported pain was on average 5 in 10 in the first minute and in the following hours it decreased, remaining on average 1 in 10. Negative pressure wound therapy was applied in sternotomies, conventional treatment with topical antimicrobials and compression therapy was applied in saphenectomies. In seven days, the reduction of devitalized tissue was noticeable, as was the ease of removal.



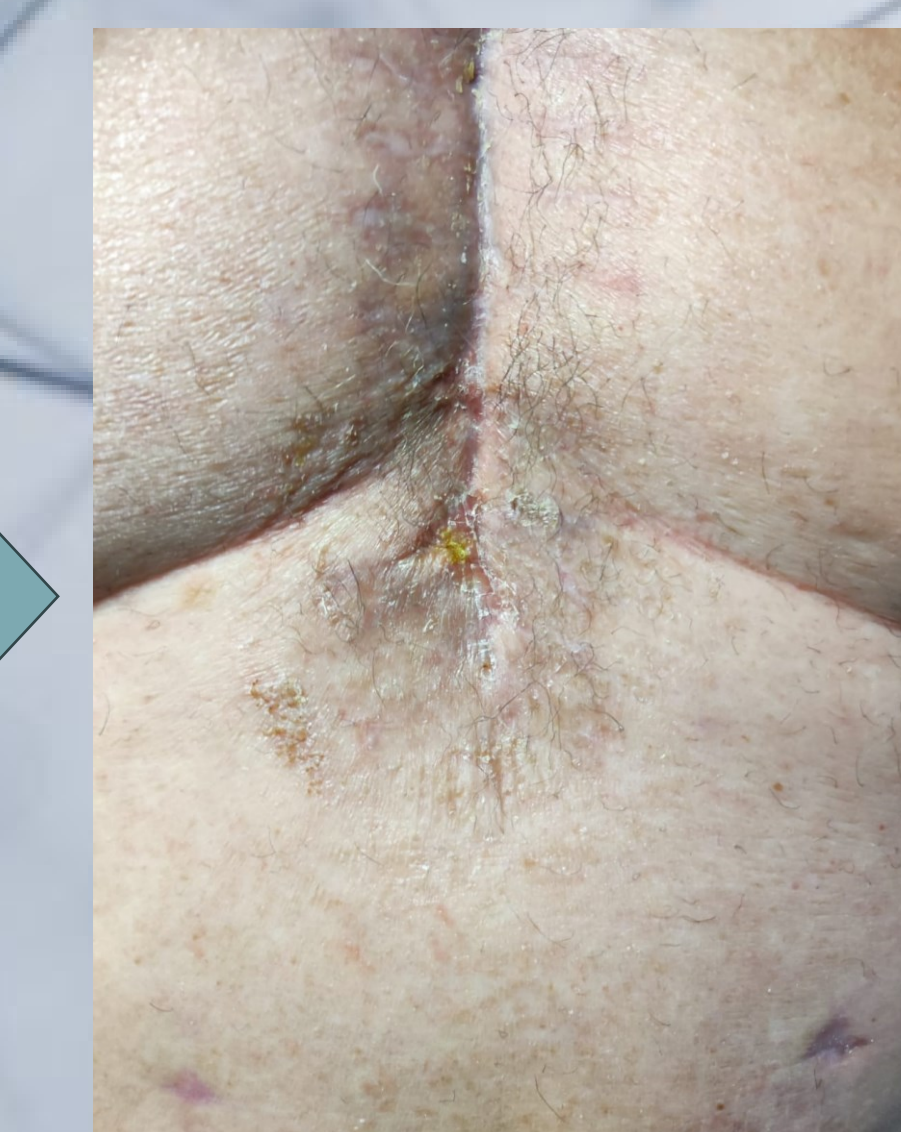
Dehiscence of sternotomy (30 days after 1st surgery)



TDA application



After 7 days with NPWT



3 months after application of TDA

Chemical debridement, despite being described as very painful, was well tolerated after instillation of local anesthetic. After seven days, the amount of devitalized tissue was significantly reduced, allowing the remainder to be removed more quickly in hypocoagulated patients in whom sharp debridement is contraindicated. The healing process was faster, and less treatments with a better quality of life.

### References

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