EARLY ENZYMATIC DEBRIDEMENT OF DEEP DERMAL BURNS: FIRST RESULTS OF USING OUR PAIN AND CARE PROTOCOL FOR THE APPLICATION OF A BROMELAIN BASED ENZYMATIC DEBRIDEMENT (P174)

Balliu K.1, *Persoons P.1

1 Military Hospital Queen Astrid, Burn Center, Neder-Over-Heembeek, Belgium

Introduction: Thermal injury to the skin is associated with the formation of necrotic tissue. Sharp surgical debridement with the Goulian, Weck or Cobbeth knife is the current standard method for debridement of necrotic tissue. While this method is fast it may lead to excessive removal of viable tissue. A pineapple stem derived enzymatic ointment of Bromelain was developed for debridement of necrotic tissue while preserving viable tissue. We settled up a pain and care protocol to help the caregivers with the application of the new product.

Method: Since January 2015 we have used the commercially available drug, Nexobrid, for debridement of full thickness and partial thickness wounds of up to 15% TBSA burn in our burn center. We created a new care and pain protocol for the application of the new product.

Results: After an introduction of the product in our burn center, we received all the necessary information to construct a adapted care and pain protocol. The care protocol was adapted to the working load in our burn center and the application happened on the ICU or at the one day clinic. For the pain and sedation control we shared our daily experience with the sedation of severe burned patients and the SOC for the sedation of children in our ODC. We compared this protocol with the SOC used in a hospital with a lot of experience with Nexobrid. After a few applications of the product we could consider that the application of the product could be done in a safe and comfortable way within the normal day program. One of the most important things to consider is that no SSD products could be used before the application of Nexobrid. We made the choice to cover the wound bed after debridement with allografts. Caregivers should take notice that this product can change SOC and needs an adaptation of normal care, for example a pseudo eschar should not be removed.

Conclusions: We consider that topical enzymatic debridement with a Bromelain based ointment is a fast and selective method for removing burn necrosis. In addition to tissue preservation this novel technique may allow precise diagnosis of indeterminate burn wounds. After a few applications of the product we could consider that the application of the product could be done in a safe and comfortable way within the normal day program, can be performed as a bedside procedure (no need for an operating theatre).

Applicability of Research to Practice: Enzymatic debridement with Bromelain adds new debridement possibility.