THE ROLE OF AN EFFECTIVE, FAST & SPECIFIC ENZYMATIC DEBRIDING AGENT (NEXOBRID) IN THE CARE OF MASS BURNS IN A DISASTER SCENARIO (P187)

*Rosenberg L.1, Shoham Y.1, Krieger Y.1, Silberstein E.1, Singer A. J.2

1 Soroka University Medical Center, Department of Plastic and Reconstructive Surgery and Burn Unit, Beer Sheva, Israel
2 Stony Brook University, Department of Emergency Medicine, Stony Brook, New York, United States

Background: Reducing dependency on scarce, highly trained surgical teams and surgical facilities is a major goal of preparedness for burn mass casualties. We describe how an enzymatic debriding agent can be used in a mass casualty scenario to help care for the large number of casualties with limited resources.

Methods: NexoBrid (NXB) is a bromelain based topical enzymatic debriding preparation evaluated in numerous preclinical and 7 clinical studies (5 controlled). It rapidly removes the burn eschar and has characteristics that make it an attractive alternative to standard surgical therapy in the mass casualty scenario. NXB can be immediately applied on fresh burns indiscriminately of the burn depth without special surgical facilities or blood transfusions. In most cases complete eschar removal without harming viable tissues is achieved after a single 4-hour application that also relieves any burn induced interstitial/compartment syndrome. The clean wound bed can then be autografted or covered by biological dressings, protecting and allowing the exposed dermis to epithelialize spontaneously.

Results: NXB proved to be an effective, fast and specific debriding agent. Early NXB debridement significantly reduces the burden of surgery (excisional debridement, autografting and escharotomy) and the dependency on specialized personnel and facilities. The long term scar quality and function are at least as good as the standard of care and a porcine study has even demonstrated the ability of NXB to remove Sulfur Mustard contaminated tissues reducing the need for surgery.

Conclusions: NXB significantly reduces the surgical burden and dependency on trained personnel and limited facilities while achieving outcomes similar to the standard of care offering a potential solution to first line debridement/escharotomy in the care of burn mass casualties.