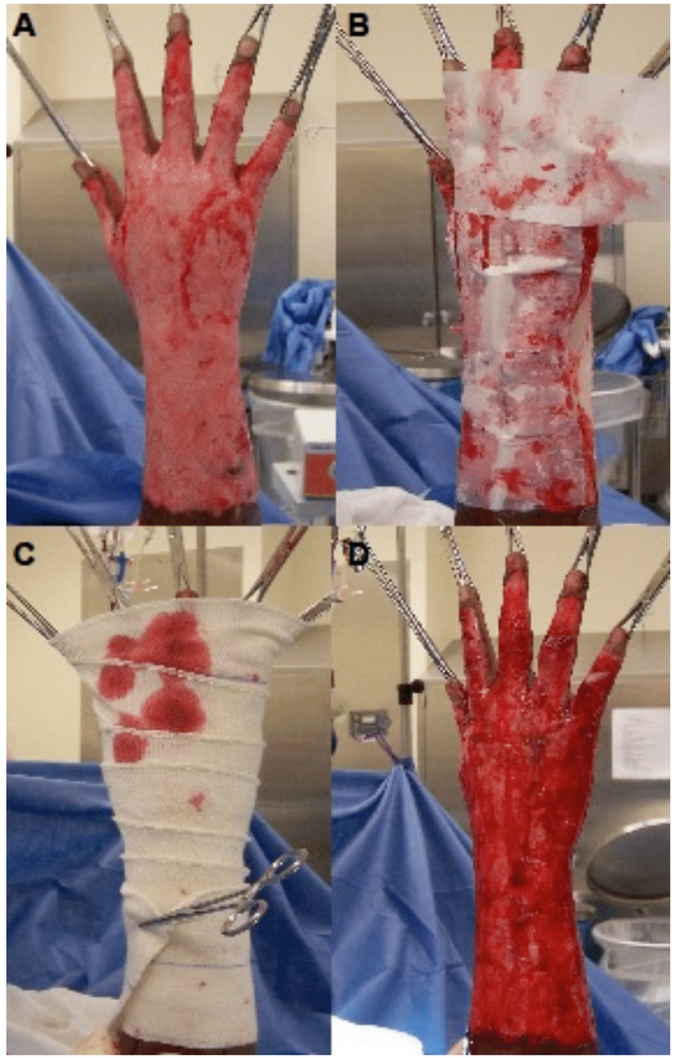

Figure 1: (A) Intraoperative pre debridement, (B) Application of BloodSTOP iX®, (C) Wrapping of compression dressing, (D) Dressing takedown

hemostatic agent that uses an etherified sodium carboxymethyl cellulose to make a water-soluble, bioresorbable nanocellulose matrix for intraoperative hemorrhage control.

Methods

We identified 10 patients who were admitted to a single, verified burn center for burn management between July and September of 2018. All patients underwent tangential excision and debridement of their partial-thickness or full-thickness burns with immediate post-debridement application of the topical hemostatic agent. The topical hemostatic agent was left in place for twenty minutes. Hemostasis was ensured prior to securing the split-thickness skin graft.

Results

The study agent was placed over the wound bed immediate after debridement. This was followed by a dry collagen and silica based dressing wrapped in a compressive fashion and left in place for twenty minutes. Immediately after the dressing was taken down, excised areas were noted to be roughly 90% hemostatic with small punctate hemorrhages that were easily controlled with electrocautery. [Figure 1] Suture ligation was rarely needed. In prior cases without the use of the study agent, the wound bed was noted to be roughly 30% hemostatic immediately after excision and subsequent compressive dressing removal.

Lessons Learned

- **Controlling intraoperative hemorrhage** remains crucial component in all tangential excisions for burns.
- Future studies needed to see if this product can be used for **other applications in hemorrhage control**.

Thomas Q Xu, MD[1]; Kristina Z Kramer, MD[2]; Emily Koeck, MD[2]; Faran Bokhari, MD, FACS[2]; Stathis Poulakidas, MD, FACS[2]

1. Department of Surgery, Rush University Medical Center, Chicago, IL
2. Department of Trauma and Burn, John H Stroger Jr. Hospital of Cook County, Chicago, IL