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## Poster Presentation

Optimal moisture balance :

The challenge of extravasation wound management

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# Optimal moisture balance: The challenge of extravasation wound management

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## Introduction

Extravasation with norepinephrine may cause severe local tissue ischemia and necrosis mediated by vasoconstriction<sup>1</sup>. The site of infiltration typically manifests with blanching, swelling, hypoperfusion, and local hypothermia. This is followed by purple discoloration and extreme pain, and within 48 hours, fluid-filled bullae, or vesicle formation. This may lead to sloughing and eschar formation<sup>2</sup> a barrier against the migration of epithelium and provides a medium for infection. This case study shows successful management of extravasation wound by promote moist wound environment, that facilitates autolytic debridement, reduces pain, activates collagen synthesis, facilitates and promotes keratinocyte migration over the wound surface<sup>3</sup>.

## Case report

A 90-year-old. A patient was diagnosed with pneumonia, respiratory failure and septic shock. He presented with swollen, erythema and blister on the right hand which caused by extravasation from Norepinephrine infusion (figure 1A). The Enterostomal therapist nurse was consulted. Initial management was fluid aspiration and dressing with polyurethane foam Ag. 7 days later wound bed became dry and cover with slough (figure 1 B). 9 days later wound bed was total cover by eschar (figure 1 C). The moist wound balance was contributed as following



**Figure 1** A: Wound bed was swollen, erythema and blister.  
B: 7 days later, wound bed was cover with slough.  
C: 9 days later, wound bed was cover with eschar

## Objective

Goals for extravasation wound management for promote optimal moist wound environment there for wound healing

## Result

5 days after intervention, hard eschar was total removed from wound bed and wound was healed in 17 days. (figure 5)



**Figure 5:** Wound healed.

## Conclusion

The Bio-cellulose dressing facilitate autolytic debridement as well as maintaining a moist wound balance. The wound was closely monitored during the autolytic debridement process. while the hard eschar was removed, the wound was excessive exudate. Therefore, the dressing was changed to an absorbent dressing.

## Reference

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## Intervention

1. Cleanse wound bed with 0.9% NaCl.
2. Sharp debridement eschar. (Figure 2)



**Figure 2:** Post sharp debridement eschar.

3. Protect wound edge and peri-wound with skin barrier film.
4. Autolytic debridement was performed as follow.
  - Primary dressing, Bio-cellulose based dressing for rehydrate and soften eschar.<sup>4</sup> (figure 3A)
  - Secondary dressing with gauze and cover with transparent film dressing for maintain fluid. (figure 3B)



A



B

**Figure 3** A: Primary dressing with Bio-cellulose.  
B: Secondary dressing with gauze and cover with transparent film.

5. After eschar was total remove (figure 4A), Balance moist wound dressing with hydro-fiber foam. (figure 4B)



A



B

**Figure 4** A: Post autolytic debridement.  
B: Cover hydro-fiber foam.