

The Ongoing Challenges: Comments on “Clinical Outcomes of Negative-Pressure Wound Therapy with Instillation without Commercial Devices in the Treatment of Complex Wounds”

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Dear Editor,

We read with interest the paper of Sung et al. published in your journal [1]. We congratulate the authors for the excellent results using the improvised continuous instillation negative-pressure wound therapy (NPWTi) system in complex wounds not healed by conventional dressings. We started using a similar system in 2018 with continuous irrigation of saline plus chlorhexidine for deep surgical site infections after laparotomy. The only difference of our system from that of Sung et al. is that the drain is inserted within the foam. As of today, there is an ongoing trial in our institution comparing conventional negative-pressure wound therapy (NPWT) and NPWTi in this scenario.

We have some questions about case 2, Fig. 5 (methicillin-resistant *Staphylococcus aureus* wound infection after abdominal aortal aneurysm repair). Was the infection located only in the middle of the wound? In our practice, the infection usually affects the whole wound. Where was the NPWTi applied—only in the middle of the wound? Also, the picture does not clearly demonstrate which kind of flap was used. In our practice, we use simple sutures for delayed closure with suction drainage maintained for 24 hours. Were there any allergic complications associated with the povidone-iodine solution?

As for the evidence about NPWTi—despite the growing experience, sound well-designed trials are still lacking due to many reasons [2,3]. First of all, as the authors noted, “Statistical comparison between NPWTi and conventional dressing or NPWT was not conducted because we selected patients who had complex wounds that were not healed by conventional dressings.” Adequate comparison is frequently hampered by the extreme variability of the wounds and the well-known factors influencing wound healing, which make it very difficult to collect a similar control group. The kind of microbiological flora in the wounds also influences the outcomes-resistant versus non-resistant pathogens. There is also a wide variety of solutions that have been used in NPWTi. But as Kim et al. [2] previously noted, “Instillation of normal saline can achieve comparable outcomes to other types of solution.”

Together, these factors make it difficult to organize a homogeneous and adequate sample size. Last but not least, we should remember that adequate debridement and lavage during operating room visits remain the mainstay of the fight against infection.

Letter

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Conflict of interest

No potential conflict of interest relevant to this article was reported.

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