The Cardiothoracic Surgeon

LETTER TO THE EDITOR

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Letter to editor: surgical outcome after using negative pressure therapy in infected leg wounds in coronary bypass grafting surgery

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To the editor,

I am writing to express my appreciation for the recent article of Shaalan et al. [1], entitled surgical outcome after using negative pressure therapy in infected leg wounds in coronary bypass grafting surgery. I would like to congratulate the authors on their publication. The research presented in this article sheds important light on new interventions in cardiothoracic surgery, and the author's contribution to the field is highly remarkable. However, I would like to make some contributions of my own.

Negative pressure wound therapy has become a milestone in achieving better postsurgical outcomes. It has reduced surgical site infections and hospital stays with better outcomes. But we cannot ignore some side effects like retained foams, which bring about some devastating complications like infection persistence, prolonged antibiotic courses, repeated surgical revisions, and wound healing complications [2]. To overcome that complication, foams with radio-opaque markers should be used, and further detailed documentation of foams, their type, number, and location should be reported. At the time of removal, careful examination of removed foam for its integrity should be carried on, to avoid retained foam pieces.

One of the important factors for delayed wound closure is dehiscence, which is the separation of wound edges. There can be several reasons for dehiscence; it can be technical like suture breaking, inadequate splinting, knots slipping, and cutting through tissue. One of the important causes of dehiscence in sternal surgery is chronic obstructive pulmonary disease which can hinder wound closure [3].

Prophylaxis of antibiotics is one of the important factors for better wound healing. Selecting an antibiotic is a crucial step, many surgical site infections (SSI) are caused by gram-positive staphylococci, and gram-negative organisms are also frequently involved, so the choice of antibiotic prophylaxis should depend on its efficacy and safety profile; cefazolin, a beta-lactam, was mentioned by Shaalan et al. [1] which is one of the effective drug, but regarding safety profile before giving cefazolin, drug history for beta-lactam reaction should be investigated, and in case of positive history, an alternative drug should be selected; in that case, clindamycin is one of effective and safe alternative and should be given [4].

The author mentioned risk factors for surgical site infection, which were female gender, diabetes mellitus, peripheral limb ischemia, coagulopathy, and high lipid profile. Some more important risk factors according to a study conducted by Cheadle et al. [5] are malnutrition, advanced age, smoking, compromised immunity, and physiological states like trauma, shock, hypothermia, blood transfusion, hyperglycemia, and hypoxia.

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