Risk factors for deep sternal wound infections after cardiac surgery in Jordan.

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Abstract

AIM:

The purpose of this study was to assess rates of and risk factors for deep sternal wound infection after coronary artery bypass grafting surgery.

BACKGROUND:

Deep sternal wound infection is one of the most devastating complications of cardiac surgery, resulting in multiple operative and non-operative procedures and increased hospital costs.

DESIGN:

A retrospective design using an existing coronary artery surgery database of adults (n=206) who had undergone coronary artery bypass grafting surgeries between January 2004-January 2006 at a university affiliated hospital, northern Jordan was used.

METHOD:

Multiple logistic regression analyses were used to assess rates of and risk factors for deep sternal wound infection.

RESULTS:

Deep sternal wound infection incidence rate was 22% of the total sample. Risk factors of deep sternal wound infection include: (1) diabetes (OR=0.317, p=0.048), (2) Obesity (OR=0.275, p=0.011), (3) duration of surgery (OR=4.22, p=0.032) and (4) use of intraaortic balloon pump (OR=0.033, p=0.001).

CONCLUSION:

The proposed model provides a preliminary indication of risk factors placing coronary artery bypass grafting patients at risk of DSWI. Further investigations and testing of the model are needed.

RELEVANCE TO CLINICAL PRACTICE:

Determining patients who are at risk of developing deep sternal wound infection after cardiac surgeries is the first step towards its prevention.