

Poster Presentation

Intrawound Low-dose Vancomycin (250 mg) Powder has Lower Risk of Wound Dehiscence than Higher Doses in Spine Surgeries

Ahmed Sonbol

Introduction

Surgical site infection post spinal surgery is a known complication which can be serious and may require aggressive intervention. Intrawound vancomycin powder application is an evolving method to prevent such complication. Although it has very low systemic complications, wound dehiscence with negative culture is reported in the literature. The aim of this study was to find the risk of wound dehiscence with low-dose intrawound vancomycin in comparison to 1 gr and its effectiveness in prevention of surgical site infection.

Methodology

A chart review of all patients who underwent posterior thoracic, lumbar or sacral spine surgeries from December 2009 to September 2016 in a single center was done. Patients were categorized into three groups. First, patients who did not receive any intrawound vancomycin; second, patients who received high-dose vancomycin (1 gr); and third, patients who received low-dose vancomycin (250 mg). Additionally, patients' demographic information, clinical data, and surgical variables were collected. Primary outcome was the presence of wound dehiscence or surgical site infection.

Result

In total, 391 patients were included in this study, of which 56 (14.3%) received high-dose intrawound vancomycin, 126 (32.2%) received low dose, and 209 (53.5%) did not receive any. The overall incidence of wound dehiscence was 6.14% (24 out of 391 patients). Wound dehiscence was statistically and significantly higher ($p = 0.039$) in the high-dose vancomycin group in comparison to the patients who received low dose. The overall incidence of postoperative infection was 2.05% (eight patients). There was no statistically significant difference between the groups.

Conclusion

The use of intrawound low-dose vancomycin (250 mg) has less wound dehiscence in comparison with other higher standard doses. Further trials are needed to evaluate the effectiveness of this dose in preventing postoperative infections.

Correspondence

Ahmed Sonbol

Email:

a_sonbol1234@hotmail.com