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**SURGICAL PROPHYLAXIS WITH VANCOMYCIN FOR UNINSTRUMENTED SPINE SURGERIES: A META-ANALYSIS**

**Introduction:**

Spine surgery infections are serious complications for patients and health systems. Vancomycin powder has increasing use for surgical prophylaxis against MSSA and MRSA during spine surgery. Previous studies have demonstrated that intrawound vancomycin powder significantly reduces the infection rate for instrumented spine surgery. Our study aims to compare the rate of surgical site infection (SSI) in uninstrumented spine surgery that used vancomycin powder against controls.

**Methods:**

A search was performed on PUBMED/MEDLINE, Cochrane Database and Embase on 10 March 2021. Search keywords were “vancomycin, spine surgery, uninstrumented and spinal surgery”. Instrumented cases were excluded. Type of surgery, type of treatment and incidence of infection among experimental or control were recorded.

**Results:**

219 articles were obtained from a literature search. 16 studies met inclusion criteria. 6/16 studies that reported on the infection rate using vancomycin were obtained.

There were 1263 control cases with 12 cases of infection (0.95% overall). There were 1529 cases that received prophylactic vancomycin with 10 cases of infection (0.65%). There was no significant difference in infections between cases that received vancomycin compared to control. On subgroup analysis, studies that had a high rate of infection (Strom and Cannon) had a significant difference on the rate of infection with the use of vancomycin compared to control.

**Discussion and Conclusion:**

The current study was unable to conclude that vancomycin decreased the rate of surgical site infections. Vancomycin use may be useful in populations that have a high rate of infection. Limitations in this study include the small number of studies that report on the use of vancomycin on uninstrumented spine surgery.