

# Postoperative Deep Surgical-Site Infection after Instrumented Spinal Surgery: A Multicenter Study

A retrospective survey revealed 37 cases (1.1%) of deep surgical-site infection (SSI) among 3,462 instrumented spinal surgeries between 2004 and 2008. Excluding 8 patients who were unclassifiable, we categorized 29 patients into 3 groups of similar backgrounds—thoracolumbar degenerative disease (the DEG group;  $n = 15$ ), osteoporotic vertebral collapse (the OVC group;  $n = 10$ ), and cervical disorders (the cervical group;  $n = 4$ )—and investigated the key to implant salvage. Final respective implant retention rates for the groups were 40, 0, and 100%, with the OVC group having the worst rate ( $p < 0.01$ ). In the DEG group with early infection, those whose implants were retained had lower body temperatures, lower white blood cell counts, and a lower rate of discharge at the time of SSI diagnosis ( $p < 0.05$ ). Implant retention may be affected by initial spinal pathology. In the DEG group, debridement before drainage may be advantageous to implant salvage.

## 脊柱內固定手術後深層手術部位感染：多中心研究

回顧性調查顯示在 2004 年和 2008 年間，在 3,462 宗脊柱內固定手術有 37 個（1.1%）有深層手術部位感染（SSI）。除 8 名患者無法歸類，我們將 29 名患者分為 3 組相似的背景—胸腰椎退化疾病（DEG 組， $n = 15$ ），骨質疏鬆椎體壓縮骨折（OVC 組， $n = 10$ ），和頸椎疾病（頸椎組， $n = 4$ ）—和調查搶救植入物的關鍵。最終各組的植入物的保留率分別為 40，0 和 100%，而 OVC 組保留率是最低的（ $P < 0.01$ ）。在早期感染的 DEG 組，能保留植入物的患者都是在 SSI 診斷時有較低的體溫，較低的白血球數和較少的液體流出（ $P < 0.05$ ）。最初的脊髓病變亦會影響植入物的保留。在 DEG 組，引流前進行清創可能是利於搶救植入物。