

Complications and Pain in Obstructive Sleep Apnoea – Comparing Single and Multilevel Surgery

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Abstract

Introduction: This study aimed to investigate differences in the complication rate and postoperative pain score between single and multilevel surgery performed on patients with obstructive sleep apnoea. **Materials and Methods:** A retrospective analysis was performed on patients with obstructive sleep apnoea who underwent surgery in a tertiary referral centre over 3 years. Patients who underwent single-level nasal, palatal or tongue surgery were compared with patients who underwent concurrent multilevel surgery of 2 or 3 levels. Complications and the postoperative Visual Analogue Scale pain score were recorded and the outcomes between single and multilevel groups were compared. **Results:** The overall complication rate for patients was 12.6%, 6.7% if only patients requiring intervention were considered. The adjusted odds ratio (OR) for complication rate for patients undergoing multilevel surgery and single-level surgery was 2.76. It was not statistically significant ($P = 0.053$) after adjusting for confounders. There was more pain in patients who underwent multilevel surgery than in the single-level surgery group. **Conclusion:** Concurrent multilevel surgery is a feasible option in patients with multilevel obstruction, especially if they are undergoing palate and tongue surgery, nose and palate surgery or nose and tongue surgery. There may be more complications, though it is not statistically significant. Further studies are required to investigate the differences between single-level nasal surgery and 3-level multilevel surgery. More patients undergoing multilevel surgery than single-level surgery experienced pain. Multilevel surgery patients should have their analgesia reviewed regularly and titrated accordingly.

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