

00583 Mastoid Obliteration With Middle Temporal Artery and Inferior Musculoperiosteal Flap After Canal Wall Down Mastoidectomy

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Aims: The aim of this study is to evaluate the surgical outcomes with the use of a combination of the middle temporal artery flap and the inferior musculoperiosteal flap for mastoid obliteration after canal wall down mastoidectomy.

Methodology: A total of 55 patients who have undergone canal wall down mastoidectomy and mastoid obliteration with the middle temporal artery flap and the inferior musculoperiosteal flap were included. Surgical outcomes measured included time taken to mastoid cavity epithelisation, the creation of a dry mastoid cavity as measured by a previously developed semi-quantitative scale, and the rate of revision surgery needed.

Result: Patients were followed up for a median of 13 months. Median time to epithelisation of the mastoid cavity was 2 months (interquartile range 1-2). At 1 and 3 months, 36.2% and 69.0% of patients respectively had grade 0/1 cavities, with 1 or less episodes of mild otorrhea or sensation of wetness. 100% of patients achieved a grade 2 (more than 1 episode of otorrhea or the presence of granulation tissue that promptly resolved with simple treatment) or better cavity at 3 months. Throughout the entire follow up period, only 1 patient had a grade 3 cavity with uncontrolled infection and daily otorrhea secondary to an attic perforation that manifested at 6 months, requiring revision surgery.

Conclusion: The use of the middle temporal artery flap and the inferior musculoperiosteal flap for mastoid obliteration is an effective adjunct to achieving a safe, dry ear after canal wall down mastoidectomy.