### Introduction

- Advent of endoscopic surgery
- Extent of cholesteatoma affects surgical approach
- Approach affects surgical outcomes i.e. recurrence/residual disease

### Objective

- Commonest patterns of involvement of middle ear cholesteatoma
- Telmesani staging classification\(^1\) with modification
- Implication on surgical approach

### Methodology

- **Inclusion criteria:** All patients undergoing surgery for cholesteatoma
- **Recruitment period:** January 2012 – June 2015
- **Staging**
  - Pre-operative CT temporal bone
  - Intraoperative clinical findings
- **Surgery (all performed with microscopic approach)**
  - Modified radical mastoidectomy with meatoplasty
  - Atticotomy/atticoantrostomy with meatoplasty

### Results (n=55)

<table>
<thead>
<tr>
<th>Type of Complication</th>
<th>n (%)</th>
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- **Sinus tympani and/or facial recess involvement**
  - Grade 3: 26 (47.3%
  - Grade 2: 11 (20%)
  - Grade 1: 7 (12.7%)
  - Grade 0: 11 (20%)

### Discussion

- **58.2%** had disease that extended beyond the mastoid antrum
- Most common site affected was the posterior attic in 52 ears (94.5%). The second most common affected site was the posterior tympanum in 34 ears (61.8%).
- Follow-up >1 year: 43 (78.2%)
- Mean duration: 42.2 months (0-82 months)
- 1 patient recurrent disease at 22 months
- 1 patient required endoscope for visualisation

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### Conclusion

- Majority of cholesteatomas present with extensive attic disease and disease significantly involving the mastoid cavity
- Endoscopes may be best suited for adjunctive rather than exclusive use in cholesteatoma surgery

