IMPACT OF INTRAOPERATIVE NAVIGATION IN SURGICAL MARGINS IN MIDFACE MALIGNANCIES

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INTRODUCTION
• The surgical treatment of midface malignant tumours is often highly complex, being a surgical challenge for Oral and Maxillofacial surgeons.
• The three-dimensional anatomy of midface makes anatomical orientation difficult with an increased risk of affected surgical margins.
• Recently, computer-assisted techniques and intraoperative (IO) navigation have been applied in complex head and neck resections with promising results.

MATERIAL AND METHODS
• Thirty-six patients with malignant and locally advanced midface tumours (T4a 8ª AJCC edition) were selected between September 2016 and December 2020.
• Ambispective study:
  • GROUP 1: 18 patients prospective selected. Surgery + Intraoperative navigation
  • GROUP 2: 18 patients retrospective selective. Conventional Surgery

OBJECTIVE
• Main Objective: To demonstrate that IO Navigation reduces surgical affected margins in midface malignant tumours resections.
• Secondary Objectives: IO navigation improves prognosis, surveillance and decreases risk of surgical complications.

WORK-FLOW AND RESULTS

CONCLUSIONS
1. Intraoperative Navigation improves anatomical 3D orientation in complex resections of malignant midface tumours.
2. It could help to achieve a higher rate of free surgical margins (X² Pearson, p 0.28) and a lower rate of intraoperative complications.
3. However, It is mandatory to perform randomized studies to confirm these preliminary results.