Individual Research Project Presentations Day 10th June 2024, Kent and Medway Medical School.

What are the oncological outcomes of patients with oropharyngeal carcinoma undergoing trans-oral robotic surgery (TORS)? An evaluation of TORS procedures from a single hospital in the UK.

Student[a]**:** Michaela Mason | **Supervisor(s)**[b]**:** Mr Ali Al-Lami

Abstract

Background: Trans-oral robotic surgery (TORS) is a relatively new, minimally invasive approach to treating head and neck cancer. The recent rise in head and neck cancers in younger patients, predominantly in oropharyngeal squamous cell carcinoma (OPSCC) due to the HPV virus spurs the need to examine how well TORS, alongside pre-existing therapies performs in cancer treatment. Previous research has shown good survival outcomes in early disease stages, however, it is yet unclear how TORS contributes to treatment reflecting more diverse disease stages with the use of adjuvant treatments.

Methods: This case-series study sought to evaluate the oncological and QoL outcomes of TORS among 51 head and neck patients at a single centre in the UK. Several measures were aggregated and analysed which included: disease free survival (DFS), overall survival (OS), whether adjunct treatment was used, the extent of margin control, whether the TORS procedure was diagnostic or oncological resection, cancer stage, length of hospital stay, estimated blood loss, complications at review and patient perceived QoL as assessed by the MDADI questionnaire. The chi square test was performed to assess statistical significance between all variables, and the Pearson correlation was used to demonstrate the direction of resulting statistically significant associations.

Results: Patients ranged between stages T0-4a, N0-3b and received TORS with adjuvant treatment where clinically indicated. After an average follow-up of 18 months, overall survival (OS) was 98%, disease-free survival (DFS) 94.1% and patient QoL measures reflected good treatment response and functioning.

Conclusions: All consenting patients receiving TORS for a head and neck cancer were included in this study, thus patients showed ‘diverse’ characteristics – T0-4a, N0-3b, treated with TORS plus minus adjuvant therapy – CRT/CT/RT. Analysis showed good oncological outcomes with favourable MDADI scores 3.66, 75, which have been reflected by previous research. Overall TORS appears to provide a beneficial contribution to head and neck cancer treatment in the presence of good clinical decision making.

Keywords: Trans-oral robotic surgery | Oncological outcomes | Oropharyngeal cancer | TORS |

[a] 4th Year Medical Student, Kent and Medway Medical School, Canterbury, Kent, United Kingdom.

[b] Head and Neck Surgeon, East Kent Hospitals University Foundation Trust, Canterbury, Kent United Kingdom.

Main contact email: kmmsmmm61@canterbury.ac.uk