

# "DENTAL MANAGEMENT IN HEAD AND NECK CANCER PATIENTS UNDERGOING RADIOTHERAPY: SLOVENIAN RECOMMENDATIONS"

Krapež Jana<sup>1,2</sup>, Fidler Aleš<sup>1,2</sup>, Pavlova Kristina<sup>1,2</sup>, Miljuš Andrej<sup>2,4</sup>, Dovšak Tadej<sup>2,3</sup>

1 Department of Restorative Dentistry and Endodontics, University Medical Centre Ljubljana, Slovenia

2 Faculty of Medicine, University of Ljubljana, Slovenia

3 Clinical Department of Maxillofacial and Oral Surgery, University Medical Center, Ljubljana, Slovenia

4 University Medical Centre Maribor, Slovenia

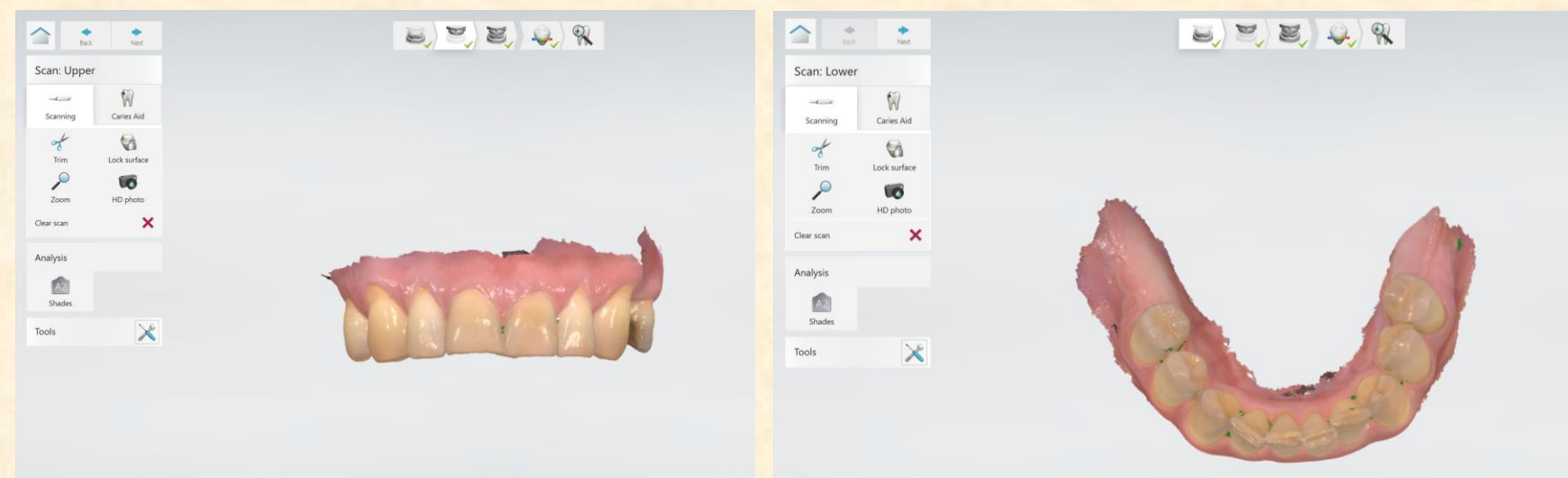


Figure 1a. SDA concept



Figure 1b. without concept

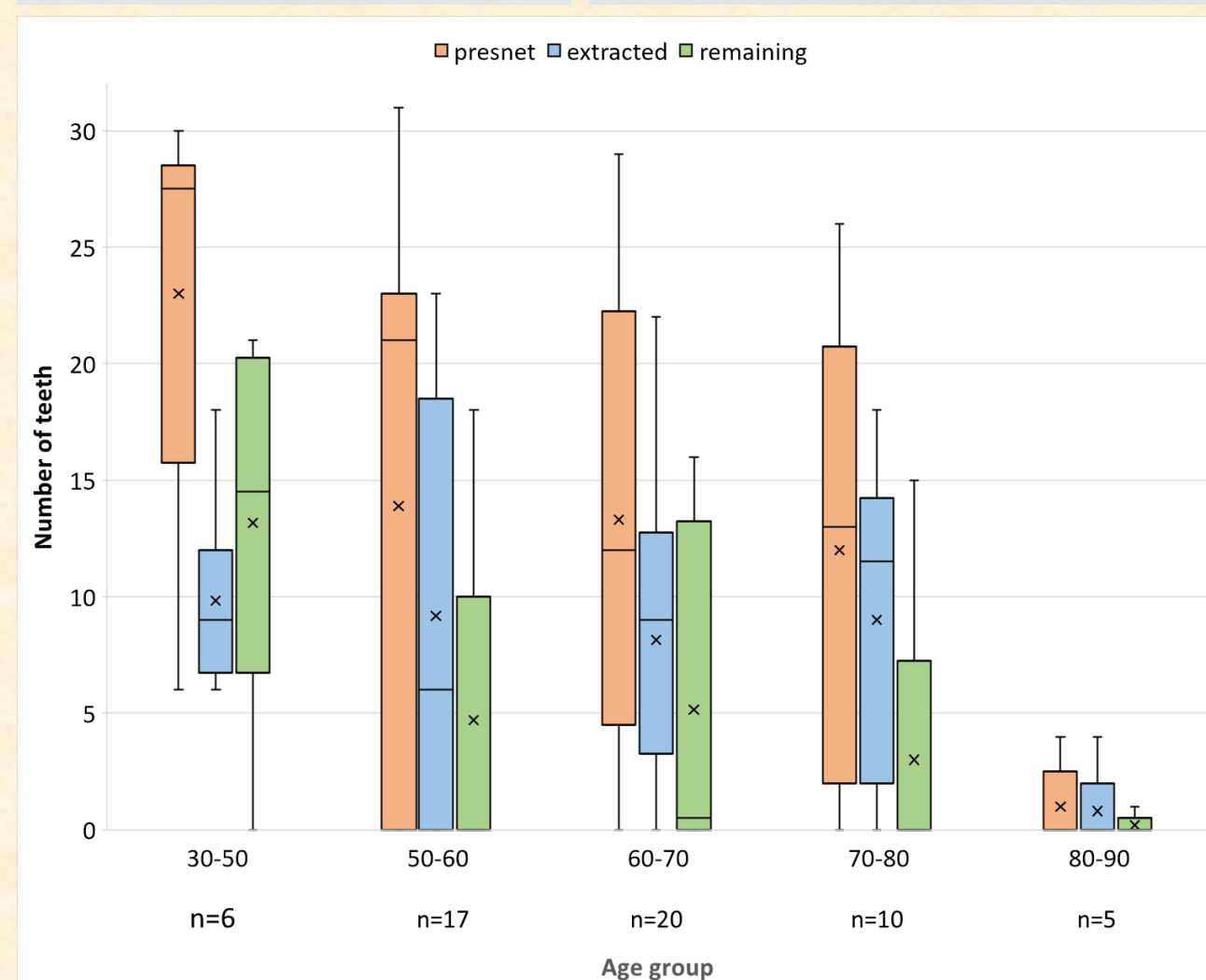


Figure 2. The number of present, extracted, and remaining teeth by age groups before initiation of RT for HNC.

## INTRODUCTION

Radiation therapy (RT) for head and neck cancer (HNC) can cause significant oral complications, including xerostomia, mucositis, dental caries, and osteoradionecrosis (ORN). Effective dental management is essential for improving patient quality of life, yet standardized care protocols are scarce. This study evaluates the Slovenian recommendations that employ the shortened-dental-arch (SDA) concept, meaning that all molars are extracted.

## METHODS

A retrospective study was conducted with 58 HNC patients treated with RT at the Department of Maxillofacial Surgery from 2018 to 2020, following the SDA concept (Fig 1a,b), with a 3-year follow-up. We assessed the number of teeth extracted or retained before RT, the number of teeth extracted after RT, and the incidence of ORN.

## RESULTS

The mean (SD; range) age of participants was 63.43 (12.13; 30.3 - 91.0) years, with 55% being smokers, and 0% HPV positive. On average, 8.2 teeth were extracted per patient. The number of present, extracted, and remaining teeth was generally decreasing with age (Fig 2). In a 3-year follow-up period, after RT only 5 teeth were extracted in 3 patients. ORN developed in 2 patients (2.3% incidence), which is lower than the figures reported in the literature. Notably, the occurrence of ORN was not associated with the site of tooth extraction, timing of extraction regarding RT (either before or after RT, while both affected patients had histories of alcohol and tobacco use).

## CONCLUSIONS

The Slovenian recommendations for dental management of HNC patients before RT were found to be effective over a 3-year period, showing a lower incidence of ORN compared to the literature. These findings underscore the importance of comprehensive dental evaluation and intervention before RT in HNC treatment, suggesting that such guidelines significantly improve patient outcomes.

## REFERENCES

- FIDLER, Aleš, ANIČIN, Aleksandar, DIDANOVIČ, Vojislav, DOVŠAK, Tadej, GAŠPIRC, Boris, GROŠELJ, Aleš, KANSKY, Andrej, KOREN, Matic, KRAPEŽ, Jana, KURALT, Hojka, KURALT, Marko, LANIŠNIK, Boštjan, MANCE KRISTAN, Romana, PAVČIČ, Jošt, PRODNIK, Luka, PUKL, Peter, OSTRC, Tadej, KUCHAR, Milan, SKALERIC, Eva, ŠIFRER, Robert, SKOPEC, Valerija, STROJAN, Primož. Priporočila za zobozdravstveno obravnavo odraslih bolnikov z rakom glave in vratu v Sloveniji, zdravljenih z obsevanjem = Recommendations for the dental management of adult patients with head and neck cancer in Slovenia treated with radiation therapy. *Onkologija : strokovni časopis za zdravnike*. [Tiskana izd.]. jun. 2022, letn. 26, št. 1, str. 28-32. ISSN 1408-1741
- DOVŠAK, Tadej, DIDANOVIČ, Vojislav. *Microvascular reconstruction in the head and neck region in elderly patients: a 10-year single centre experience : invited lecture at the 26th Congress of the European Association for Cranio Maxillo Facial Surgery held in Madrid - Spain, September 27-30, 2022*