**Depth of invasion- an ‘evolved’ but enigmatic parameter**

Akhil Girdhar¹, Anju Devi², Anjali Narwal³, Mala Kamboj⁴, Deepak Pandiar⁵

¹⁵Post Graduate Institute of Dental Sciences, Pt. BD Sharma University of Health Sciences, Rohtak, Haryana, India

**Commentary:**
Squamous cell carcinoma is the most common malignant neoplasm of the oral cavity. Prognostic and predictive factors are most decisive in staging and therefore in oral squamous cell carcinoma (OSCC) therapeutics¹. Depth of invasion (DOI) is a better and one of the most promising findings in determining the biological behavior of oral cancer². DOI, as defined by the American Joint Committee on Cancer (AJCC) in the 8th manual, is measured by dropping a perpendicular plumb line from the reconstructed horizon of the basement membrane of nearest adjacent normal mucosa to the deepest point of tumor invasion, measured in millimeters³. DOI was included in the 6th edition of AJCC staging but the definition and measurements were ambiguous with tumor thickness (TT)². The recent 8th edition of AJCC, 2017 introduced significant modifications, one important modification being the appropriate evaluation of DOI to stage oral cancer⁴.

Predicting the deepest margin and challenges in horizon estimation poses difficulty inaccurate estimation of DOI³⁴. This poster aims to elaborate on the challenges and possible solutions in the measurement of DOI. The better prognostic predictiveness of DOI compared to TT and its inclusion in the pT category for OSCC supplements the AJCC staging and warrants its accurate measurement². Consistent and accurate measurement of DOI is a challenge but is simultaneously necessary as it affects accurate staging of the tumor and inter-examiner agreement. Differences between DOI and TT should also be considered for a more precise understanding and evaluation of the two³. It will help differentiate deeply invasive, high-risk small cancers from less to moderately invasive, prognostically favorable cancers².

**References**


**Keywords:** American Joint Committee on Cancer; Depth of invasion; Oral cavity; Squamous cell carcinoma; Tumor staging; Tumor thickness.

**How to cite this article:** Girdhar A, Devi A, Narwal A, Kamboj M, Pandiar D.- Depth of invasion- an ‘evolved’ but enigmatic parameter - A Road Map, PosterJ 2020; 9(2):15.

**Source of support:** Nil.

**DOI:** 10.15713/ins.dpj.067

**Conflict of interest:** None declared

**Corresponding Author:**
Akhil Girdhar,
Post Graduate Institute of Dental Sciences,
Pt. BD Sharma University of Health Sciences,
Rohtak, Haryana, India

Email id: akhilgirdhar711@gmail.com