

DIFFERENTIAL EXPRESSION of D2-40 and E-CADHERIN in HEAD AND NECK SQUAMOUS CELL CARCINOMA

RALUCA AMALIA BALICA¹, NICOLAE CONSTANTIN BALICA², ANCA MARIA CIMPEAN¹, PUSA NELA GAJE¹, HORATIU STEFANESCU², MARIOARA POENARU², CAIUS DOROS², MARIUS RAICA¹

¹Department of Microscopic Morphology/Histology, Angiogenesis Research Center,
“Victor Babes” University of Medicine and Pharmacy, Timisoara, Romania
²Department of ENT, “Victor Babes” University of Medicine and Pharmacy, Timisoara, Romania

INTRODUCTION:

Head and neck squamous cell carcinoma (HNSCC) arise in the oral cavity, oropharynx, larynx, hypopharynx and is the fifth leading cancer by incidence worldwide. No data are available about D2-40 expression discordances between basal cells of normal epithelium from different regions of head and neck and D2-40 differential expression in different subtypes of HNSCCs. Less studied in HNSCCs, E cadherins are involved in the tumour cell detachment from the primary tumour and basement membrane invasion.

OBJECTIVE:

The aim of this work was to study D2-40 and E-cadherin expression in the tumor cells of HNSCCs with different localization.

METHODS:

We included in the study 32 biopsies from patients diagnosed with squamous cell carcinoma (well, moderate and poorly differentiated) from the:

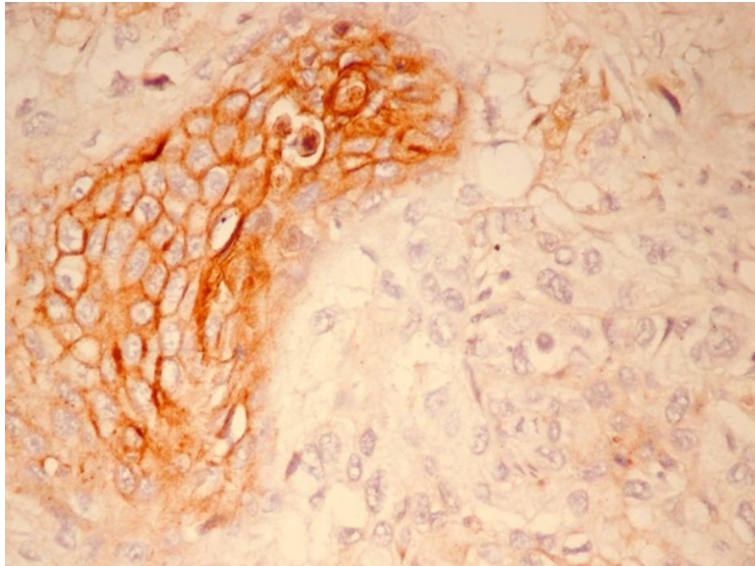
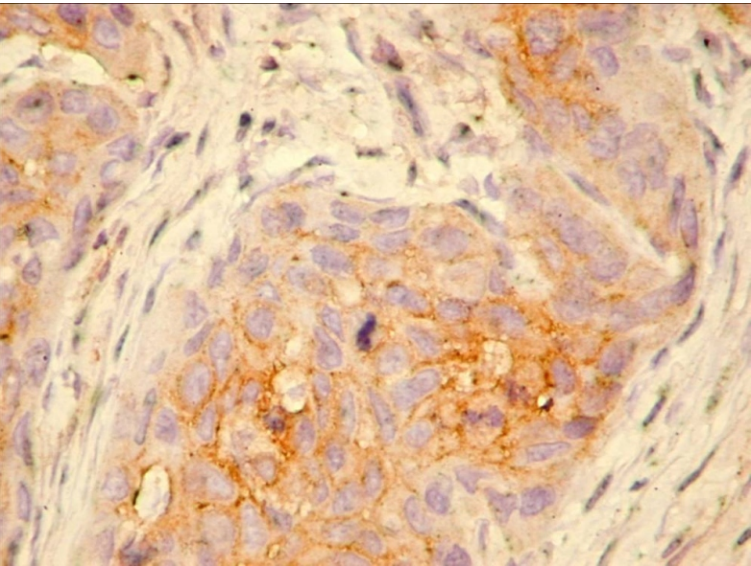
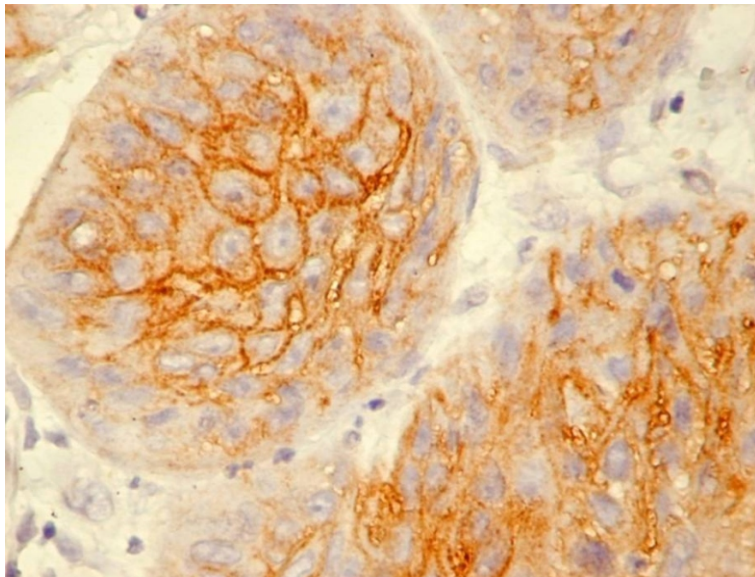
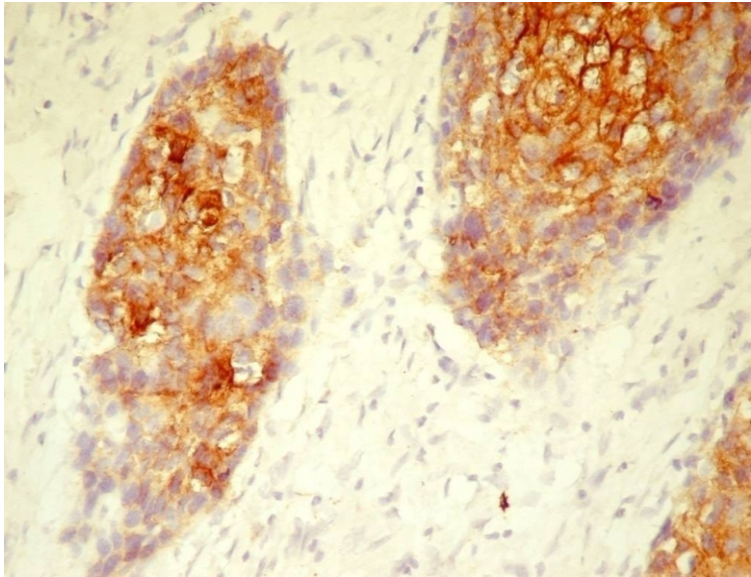
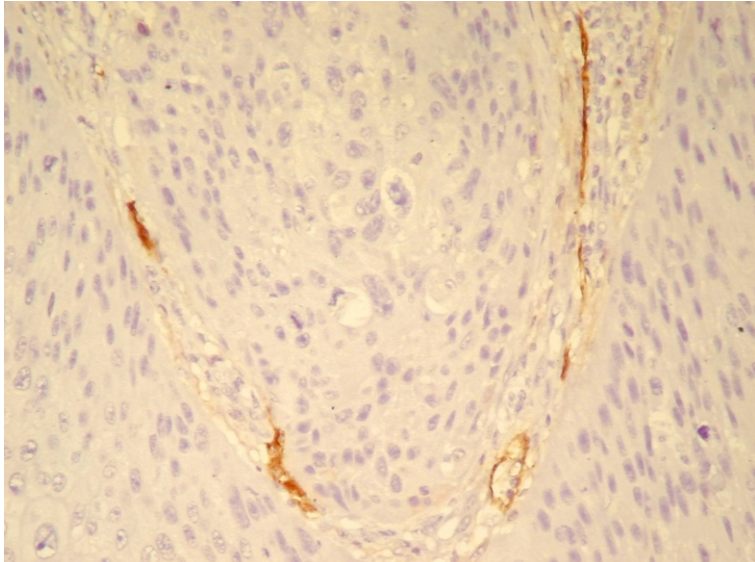
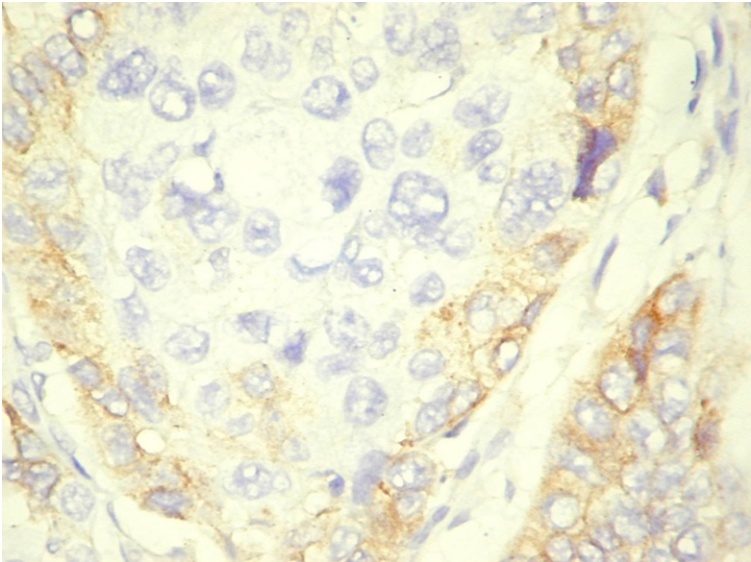
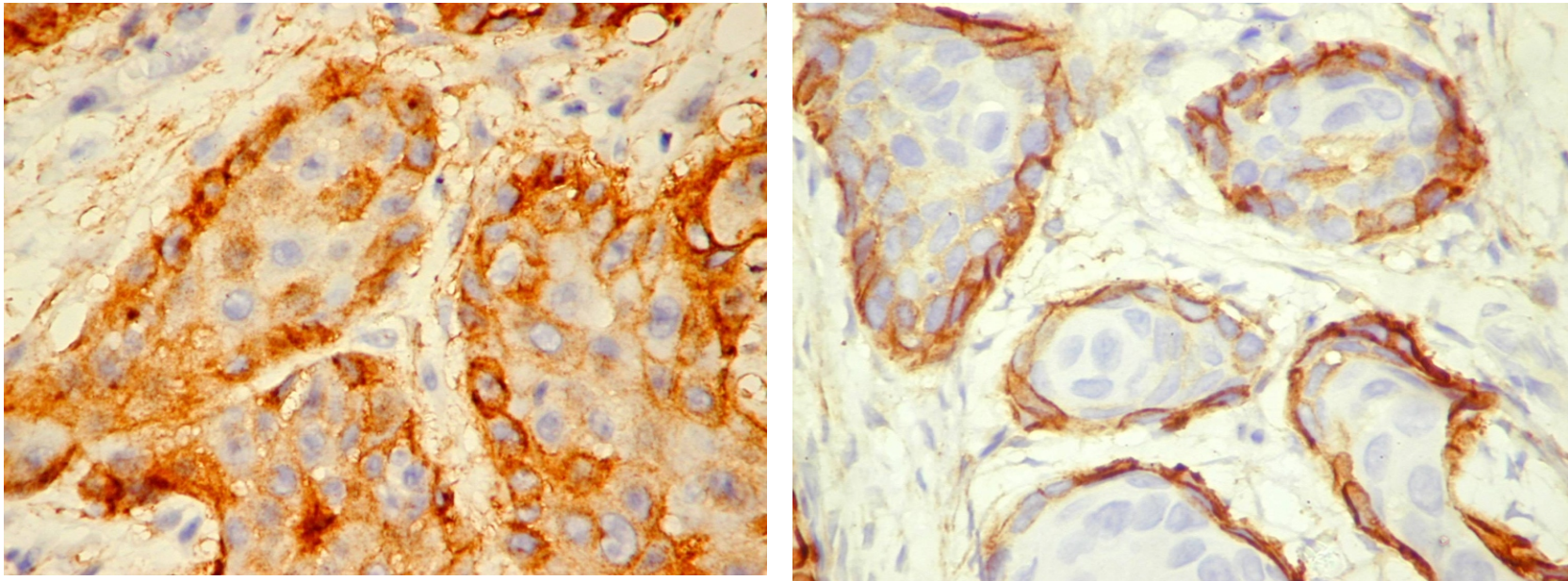
- larynx (14)
- pharynx (11)
- tongue base (2), lower lip (2)
- hard palate (1), gingival sulcus (1), nasal fossa (1)

The immunoreaction for D2-40 and E- cadherin in the tumor cells was evaluated according with the following score:

- 0 (0% positive cells)
- 1 (<10% positive cells)
- 2 (10-30%)
- 3 (>30%)

RESULTS:

We found no D2-40 expression in tumor cells of poorly differentiated HNSCC. The maximum value of score- 3 was found in both moderately and well differentiated carcinoma of the tongue, and the value 1 of score was noticed in well and moderately differentiated laryngeal carcinoma. The value 3 of score for E-cadherin was showed in well differentiated squamous carcinoma of the tongue, larynx, lower lip, nasal fossa, hard palate.



CONCLUSIONS:

The alternance of areas without and reduced expression of E- cadherin was noticed in poorly differentiated carcinoma. D2-40/ E-cadherin association may be a potential phenotype for aggressiveness in head and neck squamous cell carcinoma.