

Expression of Podoplanin in Laryngeal Squamous Cell Carcinoma and Dysplasia

Rasha Ahmed Khairy, Badawia Bayoumy Ibrahim, Mostafa Mohamed Salem and Reema Abdul Rahman Al Gunaid
Faculty of Medicine, Cairo University, Egypt

Introduction: In human cancers, podoplanin expression and its correlation with tumour invasive potential raise its possible role as a diagnostic and prognostic marker for cancer.

Aim: To investigate the immunohistochemical expression of podoplanin in laryngeal Squamous Cell Carcinoma (SCC) and dysplasia.

Materials and Methods: This study included a total of 60 archived, formalin fixed, paraffin embedded tissue blocks of 40 cases of laryngeal SCC and 20 cases of dysplastic lesions. The samples were immunohistochemically analysed for podoplanin expression.

Results: Podoplanin expression was significantly higher in laryngeal SCC (90%) than laryngeal dysplastic lesions (55%) (p-value=0.002). The expression of podoplanin was significantly increased with the higher grades of dysplasia (p-value=0.016). A significant positive correlation was detected between podoplanin expression in laryngeal SCC and depth of tumour invasion (p-value=0.035), and stage (p-value=0.026).

Conclusion: The high expression of podoplanin in laryngeal SCC and its significant correlation with poor prognostic parameters recommends podoplanin as a prognostic marker in laryngeal SCC. In addition, increased podoplanin expression with higher grades of dysplasia, supports its role in malignant transformation and allows us to recommend its evaluation in premalignant lesions.

Keywords: Immunohistochemistry, Invasive potential, Laryngeal carcinoma, Malignant transformation

Biography:

Rasha Ahmed Khairy has completed her M.D at the age of 33 years from Faculty of medicine, Cairo University. She is the lecturer of pathology in faculty of medicine, Cairo University. She has published 9 papers in reputed journals and has joined as a reviewer in reputed journal.