Her-2/Neu Overexpression in Invasive Bladder Carcinoma Among a Cohort of Egyptian Patients

Abd El-Aty Shawky, Amal Abd El hafez, Gehan Mohamed Elsaily, Hisham Y. Al-Matubsi, Adel Farahat

Abstract:

Abstract Background: Bladder cancer is one of the commonest malignancies among Egyptian population with high morbidity and mortality rates. Human epidermal growth factor receptor-2 (Her-2/Neu) seems to play role in the pathogenesis and prognosis of bladder carcinomas; however, its expression and prognostic significance were variable between different studies. This study evaluates the status of Her-2/Neu protein expression in invasive carcinomas of the bladder among a cohort of Egyptian patients using immunohistochemistry (IHC) and determines its relation to some clinicopathological factors. Methods: A number of 32 invasive bladder carcinoma patients treated with radical cystectomy were enrolled. Tumor sections were immunostained using anti-Her-2/Neu antibody and were evaluated by at least two pathologists. Statistical analysis was carried out with the Statistical Software Package Standard (SPSS). Results: Her-2/Neu membranous staining was observed in 20 carcinomas (62.5%). Statistical analysis revealed significant direct association between Her-2/Neu and both increasing grade of carcinoma (P = 0.001) and depth of tumor invasion (P ≤ 0.001). Patient's gender, histological subtype and the presence of bilharzial cystitis did not have any significant association with Her-2/Neu overexpression. Conclusion: Her-2/Neu immunopositivity was observed in a considerable proportion of cases with association to adverse prognostic factors, thus patients with high-grade, deeply invasive carcinoma of the bladder may benefit from Her-2/Neu-targeted therapies after radical cystectomy.

Keywords:

Her-2/Neu; Immunohistochemistry; Overexpression; Bladder carcinoma; Clinicopathological factors

Published In:

World J Nephrol Urol , 2(2) , 70-75