gastrointestinal tumours, non-colorectal

HER FAMILY RECEPTOR EXPRESSION AND CLINICAL OUTCOME IN PANCREATIC CANCER PATIENTS

A. Bittoni1, K. Andrikou1, A. Lanese2, M. Santoni1, C. Pelel1, A. Conti1, A. Mandolesi3, S. Alfonsi3, M. Scarpelli3, S. Cascini1

1Clinica di Oncologia Medica, Ospedali Riuniti Ancona Università Politecnica delle Marche, Ancona, ITALY
2Clinica di Oncologia Medica, Ospedali Riuniti di Ancona, Ancona, ITALY
3Anatomia Patologica, Ospedali Riuniti Ancona Università Politecnica delle Marche, Ancona, ITALY

Aim: A better knowledge of HER family receptor expression in pancreatic cancer (PC) may be useful to find new targets for therapy or predictive markers for response to anti-EGFR treatment. The aims of this study were to investigate expression of HER-1, HER-2 ad HER-3 in PC samples and evaluate the association between HER-family receptors expression and patients clinical outcome.

Methods: Tissue samples from 91 PC were subjected to immunohistochemical staining. Semiquantitative scores of zero (no staining or staining in less than 10% of cancer cells), 1+, 2+, or 3+ were assigned to each sample based on the intensity of staining for HER receptors. Scores of 2+ or 3+ were defined as positive staining.

Results: HER-1 overexpression was observed in 41 out of 91 samples (45.1%) while HER-2 was not overexpressed in the samples analyzed. HER-3 was found to be overexpressed in 37 samples (40.6%) and it was found to be associated with advanced UICC stage. In particular, HER-3 was overexpressed in 11 out of 14 (78.6%) stage IV patients compared to only 33.7% in stage I-III patients (p= 0.004). Among 79 patients with available survival data, the 6 patients with strong HER-3 expression (score 3+) had a shorter survival compared to remaining patients, (median overall survival 6.9 months vs 12.3 months).

Conclusions: HER-1 and HER-3 were found to be expressed in a significant proportion of PC patients. HER-3 strong expression represents an indicator of poor prognosis in PC patients being associated with advanced stage and shorter survival.

Disclosure: All authors have declared no conflicts of interest.