gastrointestinal tumours, non-colorectal

HER FAMILY RECEPTOR EXPRESSION AND CLINICAL OUTCOME IN PANCREATIC CANCER PATIENTS

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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.

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