

EGFR Expression in Gallbladder Carcinoma in North America

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Abstract :

BACKGROUND: Increased epidermal growth factor receptor (EGF receptor) expression has been noted in various cancers and has become a useful target for therapeutic interventions. Small studies from Asia and Australia have demonstrated EGFR over-expression in gallbladder cancer. We sought to evaluate the expression of EGFR in a series of 16 gallbladder cancer patients from North America.

METHODS: Using tumor registry data, we identified 16 patients diagnosed with gall bladder carcinoma at our medical center between the years of 1998 and 2005. We performed a retrospective review of these patients' charts, obtained cell blocks from pathology archives and stained for EGFR and Her2/neu. **RESULTS:** Fifteen of sixteen patients were noted to over-express EGFR. Three were determined 1+, nine were 2+ and three were 3+. Eight patients had poorly differentiated adenocarcinoma, six had moderately differentiated and two had well-differentiated tumors. In this small series, there was a trend toward shorter survival and more poorly differentiated tumors in patients with greater intensity of EGFR expression. One patient was EGFR negative but 3+ for erb-2/Her 2-neu expression. No patient co-expressed EGFR and Her-2-neu. Median survival of patients in this series was 17 months. **CONCLUSION:** In view of our observations confirming the over-expression of EGFR in our patient population in North America, and the recent success of EGFR targeted therapies in other solid tumors that over-express EGFR, it may now be appropriate to evaluate agents targeting this pathway either as single agents or in combination with standard chemotherapy.

Key Word :

gallbladder cancer, endothelial growth factor receptor (EGFR), differentiation, survival, her-2-neu

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