
Abstract:

PURPOSE: As inactivation of p53 may be correlated with poor response of tumors to chemo- and/or radiotherapy the presence of p53 mutations in exons 5-8 was determined in adenocarcinomas of the gastroesophageal junction (GEJ). As p53 protein phosphorylation at serine 15 indicates stabilization and protection against mdm-2 the presence of this phosphorylation state was subsequently evaluated.

METHODS: Mutations in exons 5-8 were analyzed by denaturing high pressure liquid chromatography (DHPLC) and subsequent sequence analysis in pretherapeutic biopsies of 38 adenocarcinomas of the GEJ that had undergone multimodal treatment in the course of a prospective multicentric phase III trial. The presence of p53 protein phosphorylation at serine 15 was evaluated by immunohistochemistry.

RESULTS: Mutations in the DNA binding region were found in 23 samples and were only weakly associated with worse 2-year survival (P=0.083). Phosphorylation at serine 15 of p53 was detected in 14 samples, being neither associated with p53 mutation nor with patient's survival.

CONCLUSION: This allows the conclusion that the determination of these two parameters does not help to select patients who do profit from multimodal treatment for adenocarcinomas of the GEJ.