Predictors of response and survival for neoadjuvant treated patients with esophageal adenocarcinoma.

Abstract:
Mainly patients with advanced esophageal adenocarcinoma who respond to neoadjuvant chemotherapy show a significant survival benefit after resection. Therefore, prediction of response before treatment is desirable. The aim of this study was to assess genetic predictors of response and survival for patients with esophageal adenocarcinoma prior to neoadjuvant therapy. Thirty-two patients with advanced esophageal adenocarcinoma who underwent neoadjuvant therapy with resection of their tumor were analyzed for thymidylate synthase (TS), excision repair cross complementing (ERCC1) and Glutathione S-transferase (GSTP-1) mRNA levels prior to the treatment. These results were analyzed in regards of response and survival. In total, 18 patients responded to this protocol. Seventeen of those did show a gene expression level at or below the respective median of at least one gene. This had a profound impact on survival, demonstrating an increase in survival for patients who have TS, ERCC1, or GSTP-1 mRNA level at or below the median. These results demonstrate a potential predictive value of a gene expression profile available prior to therapy. These data have to be confirmed by a larger prospective trial.