Response evaluation following neoadjuvant treatment of pancreatic cancer patients.

Abstract:
Pancreatic ductal adenocarcinoma (PDAC) is one of the most aggressive human neoplastic entities, with a very poor prognosis characterized by a high mortality rate and short survival. This is due both to its aggressive biological behaviour and the high incidence of locally advanced stages at the time of the initial diagnosis. The limits of resectability and the role of neoadjuvant (radio) chemotherapy for PDAC management are still unclear. A recently published article by Kats et al compared the radiological, surgical and histopathological results of 129 patients with borderline resectable tumors undergoing neoadjuvant treatment followed by surgery. Although post-neoadjuvant treatment imaging implied a low response rate, a high rate of complete resections was achieved. This seems to confirm that, though radiology has made a significant progress in defining locally advanced PDAC, there is place for further improvement. In particular, the differentiation between radiotherapy-induced scarring/fibrosis and cancer-associated desmoplasia remains a clinical/radiological challenge. Though selection of patients with occult systemic disease is possible with neoadjuvant treatment, downstaging does not seem to occur frequently. Thus, development of novel, more aggressive (radio) chemotherapy regimens is required to improve prognosis of patients with locally unresectable but not systemically micro-metastasized tumors.