**Presenter:** Sandeep Hedgire  
**Title of Abstract:** Delineating the tumor in pancreatic adenocarcinoma using USPIO-ferumoxytol: preliminary findings  
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**Modality:** MR  
**Organ System:** GI  
**Purpose:** To evaluate role of ferumoxytol in delineating pancreatic adenocarcinoma in patients undergoing preoperative neoadjuvant therapy.  
**Methods Used:** In this Institutional review board approved, HIPPA compliant prospective study, 10 patients with biopsy proven pancreatic adenocarcinoma were enrolled with the primary intention of detection of lymph node metastasis following administration of USPIO ferumoxutol. These patients received ferumoxytol at the dose of 6mg/kg. MRI scans were performed at baseline, immediate post USPIO and at 48 hrs time points with quantitative T2 * sequences using single shot, monopolar, multiecho gradient echo (TE = 4.8–24.8, TR = 169 ms, thickness = 4 mm). The patients were categorized into two groups: A- those who received preoperative neoadjuvant therapy and B- those who did not. The T2* of primary pancreatic tumor and adjacent parenchyma was recorded at 48 hrs time point in both groups. The difference between two values was calculated for both groups.  
**Results of Abstract:** Out of total 10 patients, 5 each were part of group A and group B. The mean T2* of tumor and adjacent parenchyma at 48 hrs in group A were 22.11 ms and 16.34 ms respectively. In group B, these values were 23.96 ms for tumor and 23.26 ms for adjacent parenchyma. The T2* difference between the tumor and adjacent parenchyma in patients who received neoadjuvant therapy was more pronounced compared to the difference in patients who did not receive neoadjuvant therapy.  
**Discussion:** USPIO-ferumoxytol may have potential application in tumor delineation in pancreatic adenocarcinoma. This difference may be due to accumulation of macrophages around the tumor margin as a result of neoadjuvant therapy.  
**Scientific and/or Clinical Significance?** This apparent T2* gradient may be used for better delineation of the pancreatic cancer thereby affecting surgical planning.  
**Relationship to existing work** Indistinct tumor margin always poses a challenge to the surgeon. USPIO enhanced MRI may help in better tumor delineation and better surgical planning in terms of achieving negative margins at the surgery.