

## **Biliary Complications During Neoadjuvant Therapy for Pancreatic Cancer**

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**Background:** Neoadjuvant therapy prior to resection of pancreatic head cancer increases time to surgery and thus the possibility of biliary complications. We determined the frequency and impact of biliary complications during neoadjuvant therapy prior to resection.

**Methods:** We completed a retrospective study of patients treated with neoadjuvant therapy for pancreatic head adenocarcinoma from May 2014 through March 2019.

**Results:** Of the 59 patients identified, the average age was 67 and 50.8% were male. Neoadjuvant therapy regimens included gemcitabine and abraxane + chemo-radiation (28 patients, 47.5%), FOLFIRINOX + chemo-radiation (15 patients, 25.4%) and remaining 16 patients received alternative therapeutic combinations based on tolerance. Six (10.1%) patients died prior to completion of neoadjuvant therapy. After completion of all neoadjuvant therapy, 34 (57.6%) patients went on to resection while 19 (32.2%) showed disease progression precluding surgical extirpation. Biliary complications during neoadjuvant therapy affected 16 patients (27%). Biliary interventions included percutaneous cholecystostomy drain (3 patients, 5.1%), ERCP with stent placement or exchange (6 patients, 10.1%), percutaneous transhepatic drain (4 patients, 6.8%) and hospital admission for cholangitis with medical treatment only (2 patients, 3.3%). Eight of the 16 patients with biliary complications went on to surgical resection (50%) compared to 26 of the 43 (60.4%) patients who did not have biliary complications. ( $\chi^2=0.18$ ,  $p = 0.67$ ).

**Conclusion:** Biliary complications during neoadjuvant therapy for pancreatic head cancer are relatively common, but do not significantly affect the ability to proceed to surgical resection.