Neoadjuvant Therapy in Extrahepatic Cholangiocarcinoma: Improved Outcomes or Just Rearranging the Deck Chairs?

Casey M Silver, MD; Rachel H Joung, MD MS; Charles Logan, MD; David J Bentrem, MD, MS; Anthony Yang, MD, MS; Karl Y Bilimoria, MD, MS; Ryan P Merkow, MD, MS

Background

- Upfront surgery is considered standard of care for extrahepatic cholangiocarcinoma (eCCA)
- Survival is poor
- Neoadjuvant therapy (NAT) may represent a potential management strategy

Research Objectives

1) Characterize treatment trends over time
2) Identify factors associated with the use of NAT
3) Evaluate the association between NAT and postoperative outcomes and overall survival (OS)

Methods


Inclusion: any patient with eCAs undergoing surgery
Exclusion: metastatic disease

Differences between Surgery First and NAT assessed
Stratified analysis assessed differences between Surgery First, Neoadjuvant Chemotherapy, and Neoadjuvant Chemoradiation (CRT) groups

- Multivariable logistic regression to identify factors associated with use of NAT
- Propensity score-adjusted multivariable logistic regression and cox proportional hazard models to assess associations between NAT and outcomes and OS

Disclosures

CMS and RHJ are supported by training grant T32CA247801 from the National Cancer Institute

Results

- Total study population n = 8040
- 417 (5.2%) received NAT
- Of NAT, 215 (51.6%) received chemotherapy, 202 (48.4%) CRT
- NAT increased over the study period 2.9% to 8.4% (p<0.001, Figure 1)
- Factors associated with receipt of NAT included age <50 (vs >75) and stage 3 disease (vs 0/1, Table 1)
- Compared with Surgery First, NAT was associated with higher odds of R0 resection and lower 30-day and 90-day mortality (Table 2)

- Neoadjuvant Chemotherapy alone not associated with differences in outcomes
- Neoadjuvant CRT associated with improved odds of R0 resection and lower 90-day mortality
- Neoadjuvant CRT associated with the best overall survival compared to Surgery Alone and Adjuvant Therapy (Figure 2)

Limitations

- Study design only demonstrates association
- Does not consider patients who may have received NAT but did not make it to surgery

Conclusions

Use of NAT for eCCA remains uncommon in the United States
Compared to Surgery First, NAT, particularly neoadjuvant CRT, is associated with improved postoperative outcomes and OS

Data suggests expanding the use of neoadjuvant CRT for eCCA