

Symposium 3

Is there Any Indication or Role of Adjuvant Therapy for Bile Duct Cancers?

Division of Gastroenterology, Department of Internal Medicine, Yonsei Institute of Gastroenterology, Yonsei University College of Medicine

Jeong Youp Park

Bile duct cancer comprises intra- and extrahepatic cholangiocarcinoma and gallbladder cancer. They are mostly adenocarcinoma from the bile duct epithelium. Bile duct cancer is the 8<sup>th</sup> most common cancer in Korea with incidence of 8.9/100,000 population. It is also the 6<sup>th</sup> most common cause of cancer related mortality. About 3,500 patients die every year due to bile duct cancer. It is not common cancer in Western

countries, but common in Korea, India, and South America.

Surgery is the only potentially curative treatment for bile duct cancer, but associated with some serious complications. Some reported that bile leakage, intra-abdominal abscess, liver failure occurred in 20~30% of patients. Furthermore, R0 resection is difficult to achieve that R0 resection rate ranges 60~80%.

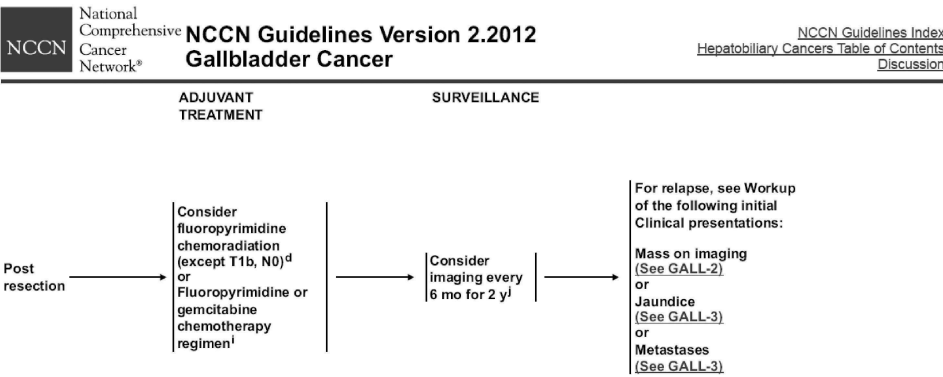


Fig. 1. NCCN guideline for adjuvant therapy of gallbladder cancer.

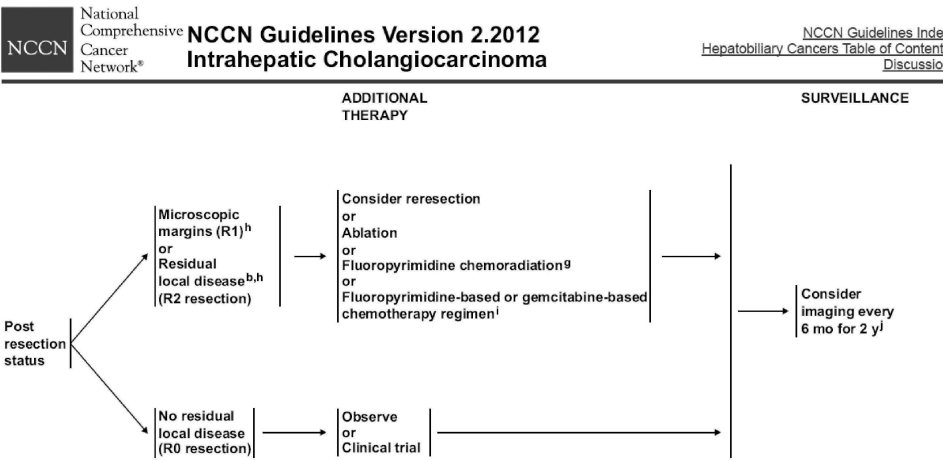
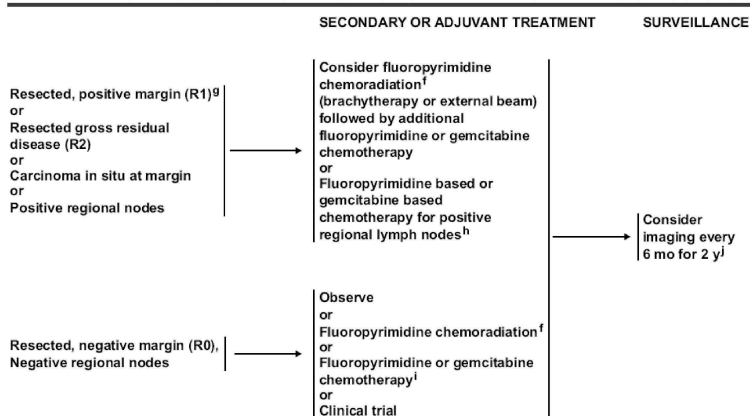


Fig. 2. NCCN guideline for adjuvant therapy of intrahepatic cholangiocarcinoma.



**Fig. 3.** NCCN guideline for adjuvant therapy of extrahepatic cholangiocarcinoma.

Even with complete surgical resection, recurrence rate can go up to 60%.

Preoperative optimization and surgical technique has been improved which increase R0 resection rate and disease free survival. Together with improved surgical techniques, various adjuvant therapies are also being tried to improve survival of the patients with high risk of recurrence which includes surgical margin status, perineural invasion, and lymph node metastasis. Other risk factors for recurrence include tumor differentiation and T stage. In future, these risk factors can be indications for adjuvant treatment after surgery.

NCCN guideline (Fig. 1, 2, 3) recommends fluoropyrimidine chemoradiotherapy, fluoropyrimidine or gemcitabine chemotherapy as adjuvant therapy of bile duct cancer. Recent report on palliative chemotherapy of bile duct cancer and a few retrospective studies suggest that gemcitabine adjuvant chemotherapy may help to improve survival. According to previous studies, gemcitabine adjuvant chemotherapy improved 5-year survival rates from about 20% to 60%. Meta analysis on adjuvant therapy of bile duct cancer also showed improved overall survival in patients treated with adjuvant radiotherapy (HR 0.62; 95% CI 0.48 to 0.78,  $p < 0.001$ ). However, no randomized comparative study was conducted to support recommendations. Since bile duct cancer is consist of heterogenous groups

of cancers and surgical technique is different among surgeons, designing clinical trial is very difficult. Further studies on larger numbers of patients are required to confirm the usefulness of adjuvant treatment.

## References

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