

## Efficacy of adjuvant treatment after curative resection in biliary tract cancer

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**Background:** Biliary tract cancer (BTC), including bile duct cancer and gall bladder cancer usually have poor prognosis and the surgical resection is the only curative treatment. Even curative resection is done, recurrent disease develops in most patients, leading to cancer related death. In BTC, the role of adjuvant treatment is not well defined. In the present study, we retrospectively evaluated the efficacy of the adjuvant treatment in BTC. **Materials and Methods:** Total 103 patients who had curative resection for BTC were analyzed. We treated with 5-fluorouracil (FU) and cisplatin chemotherapy for the patients with poorly differentiated grade or lymph node involvement. 5-FU chemoradiation was added to the patients with resection margin involvement by cancer (R1 resection). We compared the overall survival (OS) and disease free survival (DFS) to patients who did not treated with adjuvant treatment in non randomized manner. **Results:** Of the 103 patients, 82 patients completed planned adjuvant chemotherapy, and 41 patients received 5-FU chemoradiation. The recurrence developed in 58 patients (56.3%), lower than patients without adjuvant treatment (74.6%). Among the patient with recurrent disease, 37 patients had local recurrence and 21 patients had distant metastasis. In 3 year OS & DFS, patients with local recurrence showed better survival outcome than patients with distant metastasis (OS: 55.1% vs. 71.3%, DFS: 10% vs. 4.8%). As prognostic factors, perineural invasion ( $p=0.011$ ), vascular invasion ( $p=0.05$ ) and resection margin involvement ( $p=0.012$ ) showed significant association with tumor recurrence, but not with survival. The patients without adjuvant therapy had more recurrent disease than those with with adjuvant chemotherapy ( $p=0.011$ ), but there was no difference in adding 5-FU chemoradiation ( $p=0.036$ ). **Conclusions:** Adjuvant treatment possibly reduced recurrence rate, but addition of chemoradiation to the R1 resection did not seem to reduce the recurrence. The perineural and vascular invasion or resection margin involvement are poor prognostic factor for the recurrence. To determine the best adjuvant treatment modality, large, randomized and prospective clinical trial should be warranted.

## Prognosis of HER2 overexpression in small T1N0M0 breast cancer: A single center experience in Korea

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**Introduction:** A role of adjuvant treatment in patients with T1abN0M0 human epidermal growth factor receptor 2 (HER2)-positive breast cancer remains controversial. In this study, we investigated the prognosis of pT1abN0M0 breast cancer according to HER2 and hormone-receptor status. **Methods:** We retrospectively reviewed consecutive 536 patients diagnosed with T1a-cN0M0 breast cancer between 2003 and 2012 in a single center. Invasive disease free survival (IDFS), distant recurrence free survival (DRFS), and overall survival (OS) were estimated and compared by Kaplan-Meier method and log-rank test. **Results:** With a median estimated potential follow-up of 53 months, 5-year IDFS rate was 96.1% (92.3% in T1abN0, 97.3% in T1cN0), DRFS rate 98.3% (97.6% in T1abN0, 98.5% in T1cN0), and OS rate 98.4% (97.6% in T1abN0, 98.6% in T1cN0). Among 142 patients with T1abN0M0, IDFS in HER2 (+) disease (n=31, 5-year IDFS rate 73.2%, 5-year DRFS rate 96.3%) was significantly inferior to those with HR (+)/HER2 (-) disease (n=63, 5-year IDFS rate 98.4%, no distant recurrence has occurred during follow-up period) or TN (n=14, no recurrence has occurred during follow-up period). IDFS in HER2 (+) T1abN0 disease was not significantly different by HR status (5-year IDFS rate 64.1% in HR (+) HER2 (+) vs. 40.0% in HR (-) HER2 (+),  $p=0.104$ ). **Conclusions:** In Korean patients with T1abN0M0 breast cancer, HER2 overexpression was associated with worse IDFS.