



ASO Author Reflections: Neoadjuvant Therapy for Borderline Resectable Pancreatic Cancer: Is Combined Radiotherapy Necessary?

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PAST

The effectiveness of neoadjuvant chemotherapy (NAC) and combined neoadjuvant chemoradiotherapy (NACRT) for patients with borderline resectable pancreatic cancer (BRPC) has been reported.^{1–3} Combined radiotherapy with chemotherapy is effective as a local treatment modality;^{4,5} however, patients with BRPC are at high risk of recurrence after resection, with distant metastasis being the most common type. Therefore, whether local treatment using combined radiotherapy improves the treatment results of BRPC needs to be clarified.

PRESENT

The treatment outcomes of 884 patients treated for BRPC in Japanese facilities specializing in pancreatic surgery were analyzed in our study.⁶ Treatment results were compared between upfront surgery and neoadjuvant therapy, and between NAC and NACRT (concurrent chemoradiotherapy), using propensity score-matching analysis. Although the overall resection rates in patients who underwent NAT were significantly lower than in

patients who underwent upfront surgery (75.1% vs. 93.3%; $p < 0.001$), the overall survival (OS) of patients who received neoadjuvant therapy was significantly longer than those who underwent upfront surgery (median survival time [MST] 25.7 vs. 19.0 months; $p = 0.015$). The lymph node rate in patients with NACRT was significantly lower than those who underwent NAC ($p < 0.001$); however, the resection rate of NACRT cases was significantly lower than that of NAC cases ($p = 0.041$). Furthermore, the local recurrence rate of NACRT cases was significantly lower than that of NAC cases ($p = 0.002$); however, there were no significant differences in OS between NAC and NACRT (MST 29.2 vs. 22.5 months; $p = 0.130$).

FUTURE

Our study showed the potential survival benefit of neoadjuvant therapy for patients with BRPC.⁶ On the other hand, NACRT decreased the rates of lymph node metastasis and local recurrence when compared with NAC, but did not improve prognosis. In addition, the low resection rate among NACRT cases may be a critical issue. BRPC is considered a systemic disease with microscopic distant metastasis. Systemic control using systemic chemotherapy may be more important to improve the survival of patients with BRPC. Therefore, a full dose of systemic chemotherapy may be needed prior to concurrent chemoradiotherapy to improve treatment outcomes in NACRT. Appropriate regimens for neoadjuvant therapy need to be clarified in further studies.

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