

BP EV 1

Prognostic factors in conversion surgery following nab-paclitaxel with gemcitabine and subsequent chemoradiotherapy for unresectable locally advanced pancreatic cancer: Results of a dual-center study

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Lecture :

Background: In pancreatic ductal adenocarcinoma (PDAC), only radical surgery improves long-term survival. With the approval of novel chemotherapeutic regimens such as FOLFIRINOX and gemcitabine along with nab-paclitaxel (GnP), the number of surgeries performed after downstaging for unresectable PDAC is increasing. In addition, preoperative chemoradiation therapy (CRT) is increasingly utilized for locoregional control of inoperable tumors and to potentially decrease the likelihood of positive margins (R1/R2) in those patients undergoing resection. In this study, we focused on radical surgery after induction GnP and subsequent CRT with S-1 administration for unresectable locally advanced (UR-LA) PDAC.

Methods: We retrospectively analyzed 144 patients with UR-LA PDAC between 2014 and 2020. The crst-line regimen of induction chemotherapy was GnP for 125 of the 144 patients. Of the 125 patients who received GnP, 41 who underwent radical resection after additional preoperative CRT were enrolled. We evaluated the prognostic factors for this treatment strategy.

Results: The median length of preoperative GnP was 8.8 months, and 30 (73%) patients had normalized CA19-9 levels. R0 resection was achieved in 36 (88%) patients. En bloc vascular resection was required in 27 (66%) patients, with any venous resection in 22 (54%), any arterial resection in 13 (32%), and combined venous/arterial resections in seven (17%). Combined resection of the celiac axis, hepatic artery, or SMA was performed in eight patients, four patients, and one patient, respectively. Postoperative major complications of \geq Clavien–Dindo grade IIIa developed in 16 (39%) patients. With a median follow-up of 35.2 months, 14 (34%) patients developed distant metastasis after surgery. Prognostic analysis showed that the 3-year overall survival rate was 77.4% and that the 5-year overall survival rate was 58.6%. In univariable analysis for overall survival, length of preoperative GnP (\geq 8 months), CA19-9 normalization, and good nutritional status at operation (prognostic nutritional index \geq 41.7) were significantly associated with favorable prognosis. Multivariate analysis revealed that CA19-9 normalization (HR 0.23; $p = 0.032$) and prognostic nutritional index \geq 41.7 (HR 0.05; $p = 0.021$) were independent prognostic factors.

Conclusion: For surgical outcome after induction GnP and subsequent CRT for UR-LA PDAC, CA19-9 normalization and maintenance of good nutritional status during treatment until surgery were important for prolonged prognosis.