Topic : Biliary & Pancreas

PROPOSAL OF A NOVEL NODAL STAGING SYSTEM FOR RESECTED PANCREATIC CANCER AFTER NEOADJUVANT THERAPY

<u>Aram SHIN</u>¹, Woohyung LEE¹, Songcheol KIM¹, Daewook HWANG¹, Jaehoon LEE¹, Kibyung SONG¹, Yejong PARK¹, Minkyu SUNG¹, Kwangpyo HONG¹, Mirang LEE¹

¹ Division of Hepatobiliary And Pancreatic Surgery, Asan Medical Center, University of Ulsan, Republic of Korea

Background: The applicability of current nodal staging systems in patients who underwent surgery for BRPC/LAPC remains unclear. This study was aimed to investigate novel nodal staging systems in patients with borderline resectable pancreatic cancer (BRPC) and locally advanced pancreatic cancer (LAPC).

Methods : Patients who underwent pancreatic cancer surgery were divided into two groups: upfront surgery (UP) group and surgery following neoadjuvant chemotherapy (NAT) group. In NAT group, the nodal staging system was used to categorize patients based on the number of metastatic lymph nodes (nMLN0: 0; nMLN1: 1-4; nMLN2: \geq 5) by K-adaptive partition. Prognostic performance was compared using time-dependent areas under the curve (AUC).

Results : There were 730 and 347 in the UP and NAT groups, respectively. The distribution of patients with N0 in the NAT and UP groups was 55.3% vs. 47.4% (P=0.018). Novel system was prognostic for survival (nMLN0 vs. nMLN1 vs. nMLN2, median survival 38.8 vs. 26.7 vs. 20.7 months, p $\langle 0.001 \rangle$) and recurrence (18.9 vs. 11.7 vs. 6.5 months, p $\langle 0.001 \rangle$). This system was applicable for UP group (p $\langle 0.001 \rangle$). nMLN and AJCC 8th systems were comparable in prediction of RFS (0.643 vs. 0.649), and OS (0.628 vs. 0.629). This staging system was prognostic regardless of surgical extent. Advanced nMLN stage was an independent prognostic factor for worse survival (HR 1.51, 95% Cl 1.32-1.72, p $\langle 0.001 \rangle$).

Conclusions : The new nodal staging system appears to be a universally applicable staging system in the neoadjuvant chemotherapy era, as it can be used not only in NAT but also in UP.

Corresponding Author : Woohyung LEE (ywhnet@gmail.com)