Laparoscopic Pancreas-Sparing Subtotal Duodenectomy in Gastrointestinal Stromal Tumor of the Duodenum

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ABSTRACT

Background. The duodenum is a rare origin for gastrointestinal stromal tumors (GISTs).^{1,2} A decision of pancreatoduodenectomy or limited resection is a dilemma for surgeons. Recent reviews have suggested that types of surgery did not influence prognosis and limited resection was indicated for small GIST located some distance away from the ampulla of Vater (AOV).^{3,4} However, a laparoscopic, pancreas-preserving, subtotal duodenectomy was rarely performed.^{5,6}

Methods. A 20-year-old female was referred to our institution because of a duodenal submucosal mass. Computer tomography and endoscopy revealed a 3.8-cm-sized mass that was ~2 cm from AOV. A minimally invasive and function-preserving resection was scheduled.

Results. Meticulous dissection of the duodenum from the pancreatic head was a critical point. Even small breakages of vessels could provoke massive bleeding, possibly resulting in the surgeon's view being obstructed, longer operating times, or a decreased chance of performing a minimally invasive and limited resection. Therefore, an

especially meticulous and careful dissection was performed. An upper gastrointestinal series revealed no leakage, and the patient received a soft diet on postoperative day 3. The patient was discharged on postoperative day 8. Pathologic examination reported a low-risk GIST group.

Conclusions. Although clearly malignant tumors are not suitable for this approach due to poor oncologic outcomes, laparoscopic pancreas-preserving subtotal duodenectomy is a feasible and effective strategy to treat benign or borderline tumors. This approach will offer successful oncologic results and laparoscopic merits. We feel that this demonstration would advocate clinical feasibility of minimally invasive and function-preserving resections in well-selected duodenal GISTs.

DISCLOSURE Sung Hoon Kim, Chang Moo Kang, and Woo Jung Lee have no conflict of interest or financial ties to disclose.

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