

The Quality of Life in Chronic Pancreatitis: The Role of Surgery

Pierluigi Di Sebastiano

Department of General Surgery, IRCCS Casa Sollievo Della Sofferenza.
San Giovanni Rotondo (FG), Italy

Pain represents the main symptom of chronic pancreatitis (CP) and it may be considered the most important factor affecting the quality of life in patients having this pathology. Although the therapy for CP consists primarily of conservative and symptom-related treatment, long-term follow-up studies have demonstrated that about 50% of all patients will undergo surgical treatment at some time in the course of the disease [1]. In the past two decades, our knowledge of the pathophysiology and surgical treatment options in CP have improved substantially. Surgical treatment in CP has evolved from radical to organ-preserving procedures. These procedures allow the preservation of exocrine and endocrine pancreatic function, provide pain relief in up to 90% of patients, and contribute to an improvement in the quality of life. For decades, the classical Whipple resection has served as the standard operation for treating patients with CP, even though the long-term success of this procedure in patients with CP has not been satisfactory. In the United States, the pylorus-preserving Whipple resection is steadily replacing the classic Whipple procedure as the surgical standard used to treat patients with CP. The pylorus-preserving Whipple provides better postoperative results regarding quality of life and weight gain. However, many patients develop postoperative diabetes mellitus, which contributes to late morbidity and mortality. A major disadvantage of the pylorus-preserving Whipple is the resection of

the duodenum which plays a central role in the postprandial regulation of the digestive process and glucose metabolism. Therefore, recent years have seen attempts to develop more organ-preserving operations, such as the duodenum-preserving pancreatic head resection (DPPHR) introduced by Beger *et al.* [2] or the longitudinal pancreaticojejunostomy with local pancreatic head resection introduced by Frey *et al.* [3]. Both procedures are safe and effective in providing long-term pain relief and in treating the complications occurring with CP. With preservation of the physiological food passage, patients gain weight faster, have less pain, and demonstrate better exocrine and endocrine pancreatic function postoperatively. Even though many surgeons all over the world still perform the classic or the pylorus-preserving Whipple resection, the superiority of the duodenum-preserving pancreatic head resection in CP over these two methods has been clearly proven in several prospective, randomized trials [4, 5]. Therefore, this organ-preserving operation in the treatment of CP should be recommended as standard procedure.

Keywords Pain; Pancreatitis; Quality of Life; Surgery

Abbreviations CP: chronic pancreatitis; DPPHR: duodenum-preserving pancreatic head resection

Correspondence

Pierluigi Di Sebastiano

Chirurgia Generale

IRCCS - Casa Sollievo Sofferenza

71013 San Giovanni Rotondo (FG)

Italy

Phone: +39-0882.410.231

Fax: +39-0882.410.231

E-mail: p.disebastiano@operapadrepio.it

References

1. Warshaw AL, Banks PA, Fernandez-Del Castillo C. AGA technical review: treatment of pain in chronic pancreatitis. *Gastroenterology* 1998; 115:765-76. [PMID 9721175]
2. Beger HG, Schlosser W, Friess HM, Buchler MW. Duodenum-preserving head resection in chronic

pancreatitis changes the natural course of the disease: a single-center 26-year experience. *Ann Surg* 1999; 230:512-9. [PMID 10522721]

3. Frey CF, Smith GJ. Description and rationale of a new operation for chronic pancreatitis. *Pancreas* 1987; 2:701-7. [PMID 3438308]

4. Klempa I, Spatny M, Menzel J, Baca I, Nustede R, Stockmann F, Arnold W. Pancreatic function and quality of life after resection of the head of the pancreas in chronic pancreatitis. A prospective, randomized comparative study after duodenum preserving resection of the head of the pancreas versus Whipple's operation. *Chirurg* 1995; 66:350-9. [PMID 7634946]

5. Buchler MW, Friess H, Muller MW, Wheatley AM, Beger HG. Randomized trial of duodenum-preserving pancreatic head resection versus pylorus-preserving Whipple in chronic pancreatitis. *Am J Surg* 1995; 169:65-9. [PMID 7818000]