

## How to Cure Chronic Pancreatitis: Endoscopic or Surgical Approach?

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The therapy for chronic pancreatitis depends on the stage of the disease and associated complications. Conservative therapy has to focus on pain relief which involves an understanding of the multiple causes of pain, on therapy for exocrine insufficiency by application of the appropriate pancreatic enzymes, dietary regimes, and substitution of fat soluble vitamins, and, finally, on therapy for endocrine insufficiency with insulin. In a well-written review article from 1991, Mossner [1] briefly also reviewed the various surgical procedures and the possibilities of interventional endoscopy.

Subsequently, many papers have been published on the possibilities offered by interventional endoscopy but, on the other hand, several studies have been produced on the positive results offered by surgery. However, there are very few studies comparing the two procedures. In 2003, Dite *et al.* [2] published the results of a prospective, randomized trial comparing endoscopic and surgical therapy for chronic pancreatitis. Seventy-two patients were randomized; surgery consisted of resection (80%) and drainage (20%) procedures while endotherapy included sphincterotomy and stenting (52%) and/or stone removal (23%). In the entire group, the initial success rates were similar for both groups but, at the 5-year follow-up, the complete absence of pain was more frequent after surgery (37% *vs.* 14%), with the rate of partial relief being similar

(49% *vs.* 51%). The authors concluded that surgery is superior to endotherapy for long-term pain reduction in patients with painful obstructive chronic pancreatitis. They also suggested that a better selection of patients for endotherapy could be helpful in maximizing results. Furthermore, due to its low degree of invasiveness, endotherapy can be offered as a first-line treatment, with surgery being performed in case of failure and/or recurrence. The results of this study were received with scepticism by endoscopists, mainly because the treatment was tailored to the patient, surgery involved resection in the majority of patients, endoscopic drainage techniques were not optimally applied and shock-wave lithotripsy was not utilized. Several other papers utilizing sphincterotomy, dilation of strictures, and removal of stones have claimed the usefulness of endoscopic therapy in patients with chronic pancreatitis [3, 4]. More recently, a new comparative study on the long term results of endoscopic *vs.* surgical treatment of chronic pancreatitis patients was published [5]. The authors randomized 39 symptomatic patients having chronic pancreatitis with distal obstruction of the pancreatic duct and without an inflammatory mass: 19 underwent endoscopic transampullary drainage (16 of whom also underwent lithotripsy) and 20 had operative pancreaticojejunostomy. The primary end point was the average Izbicki pain score during 2 years of follow-up. The secondary

end points were pain relief at the end of follow-up, physical and mental health, morbidity, mortality, length of hospital stay, number of procedures undergone and changes in pancreatic function. During the 24 months of follow-up, patients who underwent surgery, as compared with those who were treated endoscopically, had significant lower Izbicki pain scores ( $P<0.001$ ) and better physical health summary scores evaluated using the Medical Outcomes Study 36-Item Short-Form General Health Survey questionnaire ( $P=0.003$ ). At the end of the follow-up, complete or partial pain relief was achieved in 32% of patients assigned to endoscopic drainage as compared to 75% of patients assigned to surgical drainage ( $P=0.007$ ). Rates of complications, length of hospital stay and changes in pancreatic function were similar in the two treatment groups, but patients receiving endoscopic treatment required more procedures than did the patients in the surgical group (a median of eight vs. three,  $P<0.001$ ). Once again, surgical drainage of the pancreatic duct was more effective than endoscopic treatment in patients with obstruction of the pancreatic duct due to chronic pancreatitis. What can we learn from these results? Is surgery the best approach to chronic pancreatitis patients? In the experimental condition evaluated by Cahen *et al.* [5], the answer is probably 'yes'. However, we should also remember that, in this study, the patients were very carefully selected and their number seems to be too low for drawing any definitive conclusion.

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