Vol 3 | Issue 1 | Pages 22-24

Journal of Pancreatic Cancer and Treatment

Case Series

DOI: 10.36959/829/401

Place of Median Pancreatectomies in the Management of Pancreatic Tumors: Case Series and Review of the Literature

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Keywords

Median pancreatectomy, Pancreatic insufficiency, Pancreatic fistula

Introduction

The management of tumors of the isthmus and the body of the pancreas is still a subject of debate between the various experts who must choose between a wide resection (exposing the patient to a risk of pancreatic insufficiency) and a minimalist treatment which might be insufficient. The Median Pancreatectomy is then an elegant solution to deal with it. We report the experience of our department to assess the effectiveness and feasibility of this technique.

Materials and Methods

Observation 1

38-year-old patient who complained of epigastric pain for over 1-year. The radiological assessment objectified a 4 cm lesion in the pancreatic body adhering to the splenic vein. A biopsy done under ultrasound endoscopy revealed a neuroendocrine tumor whose non-secreting nature was confirmed by biological examination. The patient underwent a median pancreatectomy with ligation of the splenic vessels and realization of a pancreato-jejunal anastomosis on a Y-shaped loop. The early operative outcomes were simple whereas the long-term evolution was marked by the discovery of hepatic metastases and a portal cavernoma (Figure 1).

Observation 2

42-year-old woman with abdominal pain associated with vomiting. Ultrasound and CT scan revealed a multi-partitioned cystic tumor of the body of the pancreas (42 × 28 mm). Biological explorations have shown hyper amylasemia and hyper lipasemia. The patient underwent a midline pancreatectomy with preservation of the splenic vessels and a pancreatic-jejunal anastomosis on the Y-shaped loop. The pathological study of the part returned in favor of a serous cystadenoma. The postoperative period was marked by the occurrence of a grade A pancreatic fistula according to the ISGPF classification (International Study Group on Pancreatic Fistula), which progressed well after 5 days of treatment with octreotide (Figure 2).

Observation 3

57-year-old patient suffering from epigastralgia and weight loss. Radiological investigation revealed a cystic mass in the body of the pancreas. The patient underwent a midline pancreatectomy with conservation of the splenic vessels and a pancreatic-jejunal anastomosis on the Y-shaped loop. The short and long-term post-operative consequences were simple (Figure 3).

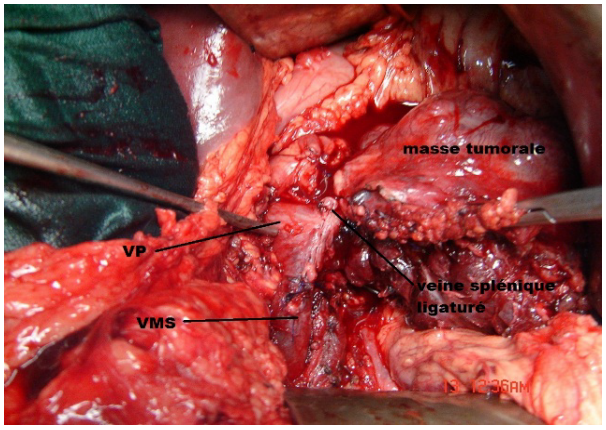

Figure 1: Operative view showing the proximal part of the pancreas (1) and pancreatic-jejunal anastomosis on the Y-shaped loop.

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Accepted: December 02, 2021

Published online: December 04, 2021

Citation: Fahssi M, Bouzroud M, Kouassi A, et al. (2021) Place of Median Pancreatectomies in the Management of Pancreatic Tumors: Case Series and Review of the Literature. J Pancreat Cancer Treat 3(1):22-24

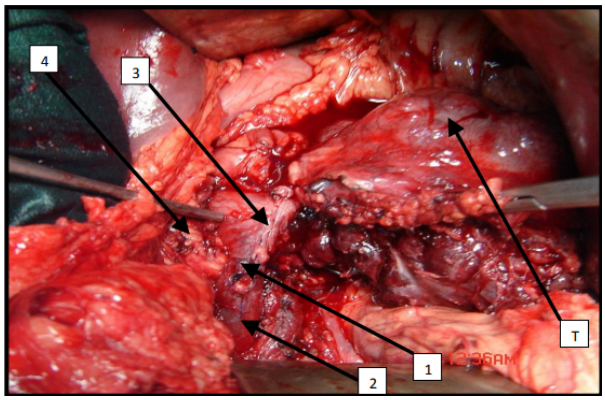

Figure 2: surgical view showing the proximal section of the pancreas, ligation of the splenic vein to its abally in the portal vein. (T: tumor, portal vein (1), upper mesenteric vein (2), sutured splenic vein (3), cephalic slice (4).

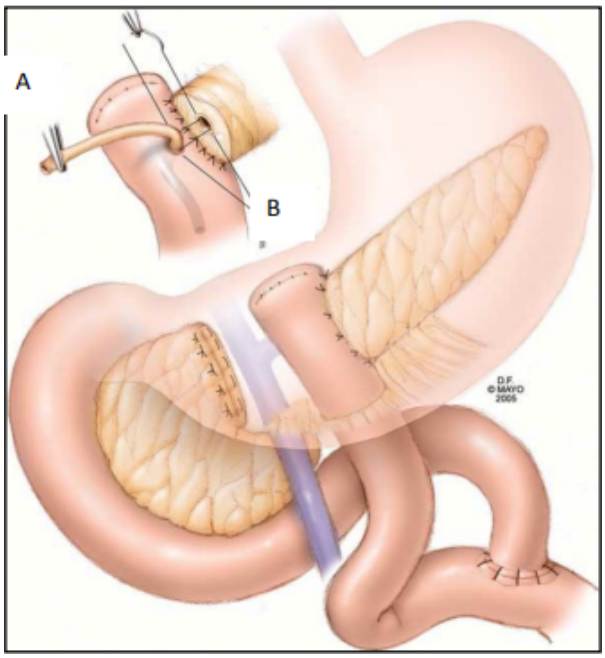

Figure 3: Illustration of the reconstruction by a pancreatic-jejunal anastomosis with or without tutor drain.

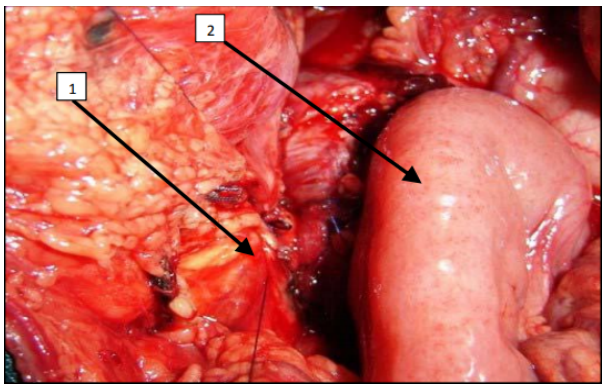

Figure 4: Operative view showing the proximal part of the pancreas (1) and pancreatic-jejunal anastomosis on the Y-shaped loop (2)

The anatomopathological study of the tumor returned show a mucinous cystadenoma.

Observation 4

57-year-old man, who complains of transfixing epigastric pain developing in a context of weight loss. A pancreatic MRI objectified a body mass of the pancreas. A median pancreatectomy was performed in this patient with simple suites and the anatomopathological study of the tumor returned in favor of a neuroma (Figure 4).

Surgical Technique

The first approach is a right subcostal incision. The mobilized tumor segment is separated from the common hepatic artery and the splenic vein (it was necessary to ligate the latter in the first patient) and then sectioned with a cold blade. The two ends of the pancreas are anastomosed to a digestive loop mounted in Y using 5/0 prolene.

A drain is left in contact with the anastomosis and the abdominal wall is closed plane by plane.

Results

Over a period of 7-years, 04 median pancreatectomies were performed in our department in 03 women and 01 man whose age varied between 38-years and 57-years.

The indications were a neuroendocrine tumor, a serous cystadenoma, a mucinous cystadenoma and a neurinoma.

The average duration of the intervention was 120 min (95-200 min) with an average blood loss of 400 ml.

No deaths occurred in the immediate aftermath.

A grade A pancreatic fistula (ISGPF) has been reported in one patient who progressed well under antisecretory treatment.

The average length of hospitalization is 06 days.

Over an average long-term survival period of 03 years (1-5-years) none of the patients presented any signs of exocrine or endocrine pancreatic insufficiency.

Discussion

Surgical treatment of benign and borderline tumors of the isthmus and body of the pancreas includes enucleation, distal pancreatectomy (DP) or duodenopancreatectomy (DP). However, DP exposes people to a risk of exocrine and endocrine pancreatic insufficiency close to 50% (exocrine) and 15% (endocrine) and DP mainly exposes people to diabetes up to 30% [1]. In 1982, Dogradi and Serio described an alternative surgical technique for the treatment of these tumors: the median pancreatectomy (MP). It allows the conservation of the pancreatic parenchyma and the spleen unlike DP and respects the biliary and gastrointestinal tract in comparison with DP. These MPs are indicated for benign and borderline tumors of the body and of the pancreatic isthmus (serous and mucinous cystadenomas, neuroendocrine tumors, solid pseudo papillary tumors, and mucinous intraductal tumors of

the pancreas) as well as in certain cases of stenosis. As well as Segmental Wirsung stenosis seen in patients followed for chronic pancreatitis. One of the most common complications after MP is the occurrence of a pancreatic fistula with a rate of up to 33.4% [2]. This high incidence in comparison with MP and DP can be explained by the existence of two slices of pancreatic section and by the fact that these MP are indicated in the case of benign tumors with a healthy pancreas and an undilated Wirsung. The majority of these fistulas are grade A and B (ISGPF) and only 10.4% are grade C.

In our series, all the patients underwent MP with reconstruction by a double pancreatic-jejunal anastomosis and the evolution was marked by the occurrence of a single case of fistula, that is an incidence of 25%. Other technical variants are defended by certain teams in order to reduce the rate of fistulas: closure of the proximal section by a prolene overlock and anastomosis of the distal end with a Y-mounted loop (Venara, et al.) or with the stomach (xiang, et al.) according to the preferences of the teams. In special situations, performing an end-to-end anastomosis between the two ends of the pancreas is an elegant solution to reconstruct the normal anatomy of the pancreas [3,4]. The interest of MP is the conservation of pancreatic capital in beta cells; whose regenerative power is limited to adulthood; and thus prevent the onset of postoperative diabetes or the aggravation of pre-existing diabetes [5]. Compared with total and partial pancreatectomies, MP also helps prevent the occurrence of exocrine pancreatic insufficiency.

Conclusion

Median Pancreatectomy is an elegant therapeutic alternative for the treatment of benign and borderline tumors of the body and the isthmus of the pancreas, the main interest of which is the conservation of pancreatic capital and thus preserving the exocrine and endocrine functions of this gland.

References

1. M Santangelo, Anna Esposito, Vincenzo Tammaro, et al. (2015) What indication, morbidity and mortality for central pancreatectomy in oncological surgery? A systematic review. Int J Surg 172-176
2. Masayuki Sho, Takahiro Akahori, Minako Nagai, et al. (2015) Central pancreatectomy with double pancreaticojejunostomy. J Am Coll Surg 221: e15-e19
3. Masayuki Ishii, Yasutoshi Kimura, Masafumi Imamura, et al. (2015) Remnant pancreas reconstruction with duct to duct anastomosis after a middle pancreatectomy: A report of two cases. Hepatogastroenterology 62: 190-194.
4. Sugito K, Furuya T, Kaneda H, et al. (2012) Long-term follow-up of nutritional status, pancreatic function, and morphological changes of the pancreatic remnant after pancreatic tumor resection in children. Pancreas 41: 554-559.
5. Yuasa Y, Murakami Y, Nakamura H, et al. (2012) Histological loss of pancreatic exocrine cells correlates with pancreatic exocrine function after pancreatic surgery. Pancreas 41: 928-933.

DOI: 10.36959/829/401