Indications and Results of Palliative Surgery in Pancreatic Cancer at Joliot Curie Institute of Dakar

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Abstract

**Background:** Pancreatic cancer is characterized by its poor prognosis. Our aim is to describe the indications and results of palliative surgery in unresectable pancreatic cancer at the Joliot Curie Institute of Dakar.

**Patients and methods:** It was a cross-sectional retrospective study including patients with unresectable pancreatic cancer in whom a biliary and/or gastrointestinal bypass was performed. The parameters studied were: age, sex, admission time, clinical signs, biology, extension assessment, surgical procedure, operative morbidity and mortality, and survival.

**Results:** Twenty-four patients were included. The mean age was 56.7 years ± 11. The sex ratio was 1.2. The mean consultation time was 11.3 months ± 12.1. The majority of patients had metastasis located only in the liver (45.8%), or both in the liver and the lung (20.8%). Regarding the surgical procedure, 87.5% had a gastro-enterostomy associated with a choledoco-jejunal anastomosis in 62.5% and a cholecysto-jejunal anastomosis alone in 20.8%. The postoperative mortality was 16.5% (n=4). The median survival time after surgery was 5.5 months.

**Conclusion:** Late diagnosis of pancreatic cancer does not always allow curative surgery. Palliative surgery is the alternative in the case of non-resectability and can improve survival and quality of life.

**Keywords:** derivations; stents; pancreas; jaundice; metastases; cancer.

Introduction

Pancreatic cancer is characterized by its poor prognosis. Complete resection is the only curative option [1, 2]. However, only 20–30% of patients can be curatively operated at the time of diagnosis [3]. The often-late diagnosis, gives to palliative surgery a key role. This surgery is performed to palliate of cholestasis and the possible duodenal obstruction by constructing a biliary and/or digestive bypass.

The aim of this study is to report the indications and results of palliative surgery in unresectable pancreatic cancers at the Joliot Curie Institute of Dakar.

**Patients and Methods**

It was a cross-sectional retrospective study from January 2009 to May 2017 at the Joliot Curie Institute of Dakar. Patients

with unresectable pancreatic cancer who had biliary and/or gastrointestinal bypass were included. The studied parameters were: age, sex, consultation delay, clinical signs, biology, extension assessment, type of surgery operative morbidity and mortality.

The data analysis was done with the software RStudio version 1.1.447. Qualitative variables were described in number with their proportion, quantitative variables as mean with their standard deviation. Survival time was studied by Kaplan-Meier method.

**Results**

Twenty-four patients were included. The mean age was 56.7 years ± 11. The sex ratio was 1.2. The mean consultation time was 11.3 months ± 12.1. The risk factors found were tobacco use (37.5%), alcohol consumption (20.8%) and diabetes (12.5%). The WHO performance status was Grade 2 in 58.3% and Grade 1 or 3 in respectively 20.8%. The clinical examination found jaundice associated with abdominal pain in 83.3% of cases, associated with vomiting in 37.5%. Hepatomegaly was found in 45.8%. A Troisier node was found in 29.2%. Biology showed 91.7% cholestasis, 62.5% cytolyis, and 66.7% anaemia. Ultrasonography was performed in 58.3% and visualized the tumor only in 29.2%. CT scan was performed in all patients. The tumor was located at the head of the pancreas in 83.3% and in the body in 16.7%. The extension was loco regional in 8.3%. The majority of patients had metastasis located only in the liver (45.8%), or both in the liver and the lung (20.8%). Surgical exploration showed peritoneal carcinomatosis in 33.3%. Regarding the surgical procedure, 87.5% had a gastro-enterostomy associated with a choledoco-jejunal anastomosis in 62.5% and a cholecysto-jejunal anastomosis alone in 20.8%. Postoperative chemotherapy was performed in 8.3% of patients. The mean hospitalization time was 8.8 days ± 2.9. The post-operative mortality was 16.5% (n=4) (pulmonary embolism (n=2), hypoglycaemia (n=1), unknown (n=1)). Morbidity was represented by 1 case of biliary fistula (4.2%). The disappearance of jaundice was effective in 79.2% at follow-up. The median survival time after surgery was 5.5 months Figure 1.
Figure 1: Kaplan-Meier survival curve (Median survival time: 5.5 months)

Discussion

The majority of pancreatic cancers occur after 50 years with a sex ratio in favor of men [4, 5]. This type of cancer is characterized by its late diagnosis as reported in others studies in our context [5]. This fact explains the fact that most of our patients already had metastases at the time of diagnosis. CT scan remains the reference imaging modality for diagnosis and extension assessment [6]. Staging is based on size, location, local extension, lymphatic invasion and metastases. Particular attention should be accorded to vascular involvement, which most often determines if the tumor is resectable and therefore the prognosis [7]. Only 5% to 10% of patients at the time of diagnosis are eligible for curative surgery. Despite this, overall survival time after curative surgery does not exceed 5% at 5 years [1, 2]. Thus, palliative treatment has an important place in more than 80% of cases. It improves the quality of life by treating or preventing biliary obstruction (jaundice with disabling pruritus, vitamin K deficiency) and / or duodenal obstruction (vomiting) [8]. Palliative treatment is endoscopic or surgical. In our practice, palliative surgery has a key place in the treatment, due to the inaccessibility and high cost of endoscopic treatment. This contrasts with what is found in the literature, where endoscopic treatment is deemed to have a lower cost [9]. Postoperative complications are not uncommon (such as biliary fistula, haemorrhage, death). The placement of endoscopic biliary and / or duodenal prostheses has a lower morbidity compared to surgery with a success greater than 90% [10]. Biliary surgery will consist of a choledoco-duodenal anastomosis unless a tumor extension in the duodenal or lower part of the pedicle biliary tract requires a hepatico-jejunal anastomosis (Y-loop) [11]. Regarding digestive surgery, studies suggest that it is preferable to systematically perform a double biliary and digestive bypass rather than a simple biliary bypass, because of the risk of secondary duodenal stenosis which repercussion and treatment particularly complicate the end of life [11, 12].

The interest of palliative surgery lies mainly in improving the quality of life as in our study (jaundice disappearance in 79.2%). A recent meta-analysis has shown that palliative prophylactic gastroenterostomy to be a satisfactory option to prevent late gastric outlet obstruction and so provide a better quality of life in selected patients [13]. Our median survival time of 5.5 months confirms the poor prognosis of pancreatic cancer, especially in our context where the diagnosis is late [14].

Conclusion

Late diagnosis of pancreatic cancer does not always allow curative surgery. Palliative surgery is the alternative in the case of non-resectability. It improves survival and quality of life. Making accessible interventional endoscopy and radiology can optimize palliative treatment.

References

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