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Pancreatic Head Cancer: Epidemiological, Clinical, Diagnostic, Therapeutic and Evolutionary Aspects

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ABSTRACT

Pancreatic head cancer is one of the leading causes of death in adults worldwide. It has now become a public health problem in developing countries because of its poor prognosis. The aim of this work was to describe the epidemiological, clinical, paraclinical, therapeutic and evolutionary aspects.

This was a retrospective and descriptive study carried out over a period of 3 years and 6 months from 1 January 2015 to 30 June 2018 in the Department of Gastroenterology and Internal Medicine of the University Hospital Center of Brazzaville. Subjects of both sexes, over the age of 18, with complete medical records were included in our study.

Of 4229 patients admitted, 55 were included, ie a hospital frequency of 1.3%. Men accounted for 55.5% and women accounted for 45.5% with a sex ratio of 1.75. The mean age was 62.4 ± 12.3 years with extremes ranging from 40 to 95. The associated risk factors were alcohol 54.5% of cases (n = 30) followed by tobacco in 30, 9 cases (n = 17). The average consultation time was 2.7 ± 3 months. The most common reason for consultation was jaundice in 96.4% of cases (n = 53). The majority of patients had a high status of WHO at 4 in 58.2% of cases. The majority of patients had hepatomegaly in 70.9% (n = 39) followed by a large gallbladder in 38.4% (n = 21). Biological cholestasis was present in 92% of cases (n = 51). Abdominal ultrasound showed hypertrophy of the pancreas head in 100% of cases (n = 55). The abdominal CT scan revealed hypodense hypertrophy in 81.8% of cases (n = 45). The majority of our patients were undergoing palliative treatment and the case fatality rate was 98.2% (n = 54) at 24 months.

The frequency of cancer of the pancreatic head was relatively low. The diagnosis is often late, making it difficult to take charge, which is responsible for the poor prognosis.

Keywords

Pancreatic cancer, Epidemiology, Brazzaville.

Introduction

Pancreatic head cancer is a malignant tumour that develops in pancreatic tissue [1]. It has now become a public health problem in developing countries because of its poor prognosis. It's annual incidence varies according to region and ethnic group. It accounts for 3% of all cancers and nearly 10% of digestive cancers worldwide [2].

In tropical Africa, the incidence of pancreatic head cancer varies between 2.5% and 4.3% of digestive cancers diagnosed in hospitals [3]. In Cameroon, the incidence is estimated at 1.16% of cancers in

general and 2.5% of digestive cancers [4]. In Mali, it accounts for 1.7% and 0.8% of all cancers in men and women respectively [5]. The only recognised effective treatment is surgical removal, based on early diagnosis of the tumour using ultrasound or abdominal computed tomography [6].

Despite the most effective means of investigation, the prognosis for this condition remains poor. This is largely due to the long latency of these tumours, which are almost always discovered at an advanced stage, when only palliative treatment can be considered. No data concerning this pathology has been described in the Gastroenterology and Internal Medicine Department of the Brazzaville University Hospital. For this reason, we proposed to conduct this study with the aim of improving the management of pancreatic head cancer in the Congo.

Patients and Methods
This was a retrospective study, carried out over a period of three years and six months from 1 January 2015 to 30 June 2018, in the Gastroenterology and Internal Medicine Department of the Brazzaville University Hospital. Patients of both sexes, aged over 18 years and with complete medical records including biological and morphological work-up (abdominal ultrasound and abdominal CT scan) were included in our study. Patients with incomplete medical records and those with cancer of the body and/or tail of the pancreas were not included.

Results
During the course of our study, 4229 patients were admitted to hospital. We included 55 cases of pancreatic head cancer, representing a hospital frequency of 1.3%.

Men accounted for 55.5% and women for 45.5%. The sex ratio was 1.75. The mean age was 62.4 ± 12.3, ranging from 40 to 95 years.

In our study, the most common risk factor was alcohol in 54.5% of cases (n=30), smoking in 30.9% of cases (n=17), obesity in 18.2% of cases (n=10), diabetes mellitus in 16.4% of cases (n=9), a family history of pancreatic cancer in 14.5% of cases (n=8) and chronic pancreatitis in 3.6% of cases (n=2).

The average consultation time was 2.7 ± 3 months, with extremes ranging from 0.3-15 months.

Table 1: Distribution of patients by reason for consultation.

Presenting Complaint	Yes		No	
	Effectif	%	Effectif	%
Jaundice	**53**	**96,4**	2	3,6
Pruritus	18	32,7	37	67,3
Abdominal pain	10	18,2	45	81,8
Weight loss	**38**	**69,1**	17	30,9
Abdominal Mass	9	16,4	46	83,6
Gastrointestinal bleeding	-	-	55	100
Ascites	2	3,6	53	96,4
Fatty Diarrhoea	1	1,8	54	98,4

The most frequent reason for consultation was jaundice in 96.4% of cases. Table 2 shows the distribution of patients according to the reason for consultation.

The majority of patients had a WHO performance status of 4 in 58.2% of cases.

In our study, 70% (n=39) of patients had hepatomegaly, followed by a large gallbladder in 38.4%. Ascites, splenomegaly and adenopathy were present in 12.7%, 9.1% and 3.6% respectively. Most patients had biological cholestasis in 92% of cases.

Abdominal ultrasound showed heterogeneous enlargement of the head of the pancreas in 100% of cases. Table 2 shows the distribution of patients according to ultrasound findings.

Table 2: Repartition of patients according to ultrasound results.

Parameters	Yes		No	
	N	%	n	%
Cephalic Pancreas				
Hypertrophy	55	100	-	-
Heterogenous	55	100	-	-
Hepatomegaly				
Homogenous	42	76,4	13	23,6
Heterogenous	14	25,5	41	74,5
Dilatation of Intrahepatic bile ducts	55	100	-	-
Dilatation of common bile duct	49	89,1	6	10,9
Dilatation of the Wirsung	14	25,5	41	74,5
Large Gallbladder	35	63,6	20	36,4
Ascites	**42**	**76**	13	23,6

We noted hypertrophy of the head of the pancreas in all patients. The enlargement was hyperdense in 81.8% of cases (n=45) and hypodense in 18.2% of cases (n=10). Table 3 shows the distribution of patients according to CT findings.

Table 3: Distribution of patients according to CT findings.

Parameters	Yes		No	
	n	%	N	%
Head of the pancreas				
Hypertrophied	55	100	-	-
Hyperdense	45	81,8	10	18,2
Hypodense	10	18,2	45	81,8
Hepatomegaly				
Homogenous	36	65,5	19	34,5
Heterogenous	19	34,5	36	65,5
Hepatic nodule				
Hyperechoic	28	50,9	27	49,1
Hypoechoic	27	49,1	28	50,9
Dilatation of Intrahepatic bile ducts	55	100	-	-
Bicanular dilatation	43	78,2	12	21,8

Most patients were on painkillers in 70.9% of cases (n=39). Table IV shows the distribution of patients according to treatments received.

In our study, the case fatality rate was 92% at 24 months.

Table 4: Repartitions of patients according to treatments received.

Parameters	Yes		No	
	n	%	N	%
Analgesics	39	70,9	16	29,1
Chemotherapy	10	18,2	45	81,8
Surgical Diversion	9	16,4	46	83,6
DPC	10	18,2	45	81,8
Endoscopic prothesis	18	32,7	37	67,3
Trans parietal drainage	8	14,5	47	85,5

Table 5: Distribution of patients according to mortality and survival.

Evolution	Yes		No	
	n	%	n	%
Death at 1 month	5	9,1	50	90,9
Death at 3 months	21	38,2	36	38,2
Death at 6 months	**39**	**70,9**	16	29,1
Death at 12 months	**49**	**89,1**	6	89,1
Death at 24 months	54	98,2	1	1,8

Discussion

The hospital incidence of pancreatic head cancer was 1.3%. Our results are comparable to those of Ndjitoyap et al. in Cameroon, who reported a frequency of 1.16% in 2002 [5]. On the other hand, Bouglouga O et al. in Togo reported a frequency of 0.68% of hospitalisations in 2015 [7]. In France, Jaeck et al. 2002 reported a frequency of 2.09%, which is higher than ours [8].

The differences observed may be attributed to the context, methodology and greater use of hospital facilities in these countries; it is estimated that the actual frequency of this condition in our context would be higher than that reported.

The mean age of our patients was 62.4 ± 12.3 years. Our results are similar to those reported in the literature. Traoré et al. in Mali reported an average age of 60 years [9]. In France, Lefèvre et al. observed a more advanced mean age of 69.9 years. Pancreatic cancer remains a disease of the elderly, with the mean age in all cases being around 60 [10]. Males predominated in 54.5% of cases, with a sex ratio of 1.75. Our data are similar to those in the literature. Bouglouga et al. in Togo in 2015 and Coulibaly et al. in Mali in 2013 found a male predominance [7-11].

The most common risk factor was alcohol (54.5%), followed by tobacco (30.9%). The role of tobacco in the genesis of cancer seems clear, as in the literature [12]. Our results are comparable to those of Coulibaly S et al. [11].

The mean duration of progression before hospitalisation was 2.7 ± 3 months. Bouglouga O et al. [7] found a longer delay of 4.4 months. This may be explained by the fact that our populations, who initially turn to traditional treatments, or for financial or distance reasons, are more likely to be treated in hospital.

The initial symptoms of pancreatic cancer are vague and non-specific.

In our study, the most frequently observed reasons for consultation were jaundice, weight loss and pruritus. Our results are similar to those of Sanogo et al. [13]. Ilic M et al. estimate that 50-90% of patients consult for abdominal pain [14]. The differences observed are attributable to various epidemiological and environmental factors.

The majority of patients had a severe deterioration in general condition in 58.2% of cases. This can be explained by the late consultation at the advanced stage. Our results are comparable to those of Bouglouga et al. [7].

The majority of patients had hepatomegaly in 70% of cases followed by a large vesicle in 38.4%. Our results are similar to those of Ndjitoyap et al. in Cameroon and Berrada et al. in North Africa [4-15]. Abdominal masses generally indicate advanced tumours, and their presence can be explained by delays in consultation and the absence of universal health insurance for citizens. Ultrasound was used to diagnose a pancreatic mass, revealing a cephalo-pancreatic tumour syndrome in all our patients.

Other abnormalities such as dilatation of the Wirsung, common bile duct and intrahepatic bile ducts were also detected by ultrasound. Our results are similar to those of Mbengue et al. and Coulibaly et al. [16-11].

These differences are due to the fact that ultrasound is an operator-dependent examination. The performance of CT for the diagnosis of pancreatic tumours is excellent, with sensitivity often exceeding 90%.

In our study, all patients underwent this examination, which revealed hypertrophy of the head of the pancreas in all patients, which was hyperdense in 81.8% and hypodense in 18.2% of cases. These results are similar to those of Bouglouga et al. [7]. With regard to therapeutic aspects, most patients were on painkillers in 70.9% of cases. This type of cancer is generally diagnosed at a late stage, which meant that almost all patients had died by 24 months.

Conclusion

Alcohol and tobacco are the most common risk factors. Clinical manifestations are dominated by the law of Courvoisier and Terrier. The invaluable contribution of morphological examinations, in particular ultrasound and CT, is an essential link in early diagnosis with a view to radical treatment.

In our context, where diagnosis is delayed, only palliative treatment is possible, which explains the high mortality rate.

References

1. Cook J. Anesthesia at the district hospital. Genève, OMS. 1988-1991

2. Audigier JC, Lambert R. Epidemiology of pancreatic cancers. Ann. Gastro-entérol Hepatol. 1979; 15: 159-161.

3. Takongmo S, Nko'amveme S, Biwole M, et al. A diagnostic approach to exocrine pancreatic cancers in a tropical environment. Méd Afr Noire. 1994; 41: 56-59.

4. Ndjitoyap Ndam EC, Mbakop A, Tzeuton C, et al. Pancreatic Cancers in Cameroon - Epidemiological and Anatomo-Clinical Study. Méd Afr Noire. 2002 : 25-27

5. Said A. Douksiye H. Pancreatic tumors increasingly a reality in tropical environments. Thesis Medicine Bamako. 2006.

6. Fattorusso V, Ritter O. Clinical Vademecum from Diagnosis to Treatment. 16th ed. Paris: Masson. 2002: 1123-1125.

7. Bouglouga O, Lawson-Ananissoh LM, Bagny A, et al. Pancreatic Cancer: Epidemiological, Clinical, and Management Studies in the Hepato-Gastroenterology Department of the Lomé University Hospital. Med sante Trop. 2015; 3: 323-326.

8. Moumen M, El Alaoui ME, Mokhtari M, et al. Our experience in treating pancreatic head cancer based on 146 cases. Maghreb. 1991; 30: 12-15.

9. Champault T, Catheline JM, Rizk N, et al. Contribution of echo-laparotomy in the assessment of curative resectability of pancreatic head cancers. Ann Chir. 1996; 50: 875-885.

10. Champault T, Catheline JM, Rizk N, et al. Contribution of echo-laparotomy in the assessment of curative resectability of pancreatic head cancers. Ann Chir. 1996; 50: 875-885

11. Coulibaly S, Keita K, Sissoko SB, et al. Contribution of ultrasound in the diagnosis of pancreatic tumors in the radiology department of the Chu du point G. Mali Médical. 2013; 10: 6-7.

12. Ezzati M, Henley SJ, Lopez AD, et al. Role of smoking in global and regional cancer epidemiology: current patterns and data needs. Int J Cancer. 2015; 116: 963-971.

13. Sanogo ZZ, Yena S, Simaga AK. Our first experience with cephalic duodenopancreatectomy. Mali Médical. 2003; 18: 4-6.

14. Ilic M, Ilic I. Epidemiology of pancreatic caner. World J Gastroenterol. 2016; 22: 9694-9705

15. Berrada SM, D'Khissy M, Ridai NO. Role of biliary-digestive diversion in the treatment of pancreatic head cancer. Maghreb. 1993; 37: 21-23.

16. Mbengue M, Ka MM, Diouf ML. Contribution of ultrasound in the epidemiology, diagnosis and prognosis of pancreatic cancer in Senegal. Journal of Ultrasound Medicine. 1999; 20: 225-229.