

Pancreatic Cancer: Epidemiological, Clinical and Therapeutic Aspects in Abidjan (Ivory Coast)

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Abstract

Aim: The aim was to study the epidemiological, clinical and therapeutic aspects of pancreatic cancers in Ivory Coast. **Materials and methods:** A retrospective multi-center and multidisciplinary study aimed at describing sixteen years and four months from January 1, 2000 to April 30, 2016 in several hospitals in the city of Abidjan taking charge of pancreatic cancers (hepato-gastroenterology services of the universities hospitals of Cocody and Yopougon), internal medicine departments of University Hospital of Treichville and Abidjan Military Hospital, the department of oncology of the university hospital center of Treichville, private clinics (DANGA, PISAM and GMP), the COBA center in Treichville. The diagnosis of cancer was based on either histological criteria or a set of clinical and paraclinical arguments. Patients whose files did not include imaging were excluded from this study. The following parameters were collected: age, sex, reason for consultation, physical signs, personal and family antecedents, tumor characteristics, delay in diagnosis and the nature of the treatment administered. **Results:** We have observed 150 cases of pancreatic cancer. The mean age of patients was 59.09 years with extremes ranging from 24 years to 88 years. Our study population consisted of 98 men and 52 women (sex ratio 1.88). Risk factors were dominated by diabetes 20.7%. Epigastralgia is the main reason for consultation (48%). The tumor was localized at the cephalic level in 84.67%. In 13 cases the diagnosis was histological and was dominated by adenocarcinoma (100%). The majority of our patients was seen at an advanced stage of the disease: stage IV (74.56%). The average time to diagnosis was 2.76 months. Fourteen of our patients (9.33%) had benefited surgery. This was curative surgery in 35.71% (n = 5) and palliative in 64.29% (n = 9). Among those who benefited from this curative surgery, three died two months after surgery and two lost to follow-up. The majority (90.67%) of our

patients had received symptomatic treatment. **Conclusion:** Pancreatic cancer is an appalling cancer with a very bad and late diagnosis because of its insidious symptomatology. Most of the time, tumors had already metastasized before diagnosis, so the treatment is often symptomatic.

Keywords

Pancreas, Cancer, Epidemiological, Ivory Coast

1. Introduction

Pancreatic cancer is a tumor developed at the expense of pancreatic tissue [1]. This neoplasm represents the eighth leading cause of death in neoplasia world-wide [2]. It is an appalling cancer because of the high mortality rate associated with delayed diagnosis. It is a tumor whose symptomatology is not very specific and of insidious evolution. Its clinical manifestation consists of jaundice associated with an alteration of the general condition. The appearance of these clinical manifestations testifies most often of an advanced stage of the disease.

The prevalence of this cancer in the world is disparate. It is higher in some areas known as high prevalence areas (United States of America, New Zealand, Korea) and low in other areas called low prevalence areas (India, Tanzania, Guinea) [3]. In Africa few studies have been devoted to this pathology, being considered formerly rare [4]-[9]. Today its incidence tends to increase due to increased exposure to alcohol-tobacco intoxication and the rise of medical imaging. In Ivory Coast there are no studies on this disease. We initiated this study, the aim of which was to study the epidemiological, clinical and therapeutic aspects of pancreatic cancers in Ivory Coast.

2. Materials and Methods

A retrospective multi-center and multidisciplinary study aimed at describing sixteen-years and four months from 01 January 2000 to 30 April 2016 in several hospitals in the city of Abidjan taking charge of pancreatic cancers (hepato-gastroenterology services of the universities hospitals of Cocody and Yopougon, internal medicine departments of University Hospital of Treichville and Abidjan Military Hospital, the department of oncology of the university hospital center of Treichville, private clinics (DANGA, PISAM and GMP), the COBA center at Treichville. The diagnosis of cancer was based on either histological criteria or a set of clinical and paraclinical arguments [cholestatic jaundice, altered general condition, large palpated vesicle, presence of an ogive, morphological abnormalities (heterogeneous mass of the pancreas, dilation of the Wirsung duct and choledochus) Dosage of tumor markers]. Patients whose files did not include imaging were excluded from this study. The following parameters (age, sex, reason for consultation, physical signs, personal and family antecedents, tumor

characteristics, delay in diagnosis and the nature of the treatment administered) were compiled on survey forms and analyzed on the IBM SPSS statistic version 20 software.

3. Results

During the study period we observed 150 cases of pancreatic cancers. The mean age of patients was 59.09 years with extremes ranging from 24 years to 88 years. Our study population consisted of 98 men and the risk factors were dominated by diabetes (20.7%) (**Table 1**).... Epigastralgia, the main reason for consultation (48%) was typical in nearly half of our patients (47.22%), followed by jaundice (44.7%) (**Table 2**). The tumor was localized at the cephalic level in 84.67% of the cases (n = 127) (**Table 3**). Only twelve of our patients (8%) had tumor markers. In 13 cases the diagnosis was histological and was dominated by adenocarcinoma

Table 1. Socio-demographic characteristics.

Variables	Frequency (n)	Percentage (%)
Gender:		
Male	98	65.33
Female	52	34.67
Age:		
Middle age: 59.09 years		
<40 years	10	6.67
40 - 59 years	62	41.33
60 - 79 years	73	48.67
>80 years	5	3.33
Riskfactors:		
Diabètes	31	20.7
Alcohol	29	19.3
Tobacco	17	11.3
Chronic pancréatitits	4	2.7
Other family cancer	3	2
Family diabetes	2	1.33
Family pancreatic cancer	1	0.67

Table 2. Distribution of patients according to the reason for consultation.

Reason for consultation	Frequency (n)	Percentage (%)
Epigastralgia	72	48
Jaundice	67	44.7
Alteration in general condition	45	30
Abdominal mass	34	22.67
Pruritus	26	17.33
Vomiting	5	3.33
Ascites	4	2,67
Digestive bleeding	3	2

Table 3. Patient distribution according to the localization of the cancer.

Site	Frequency (n)	Percentage (%)
Head	127	84.67
Tail	9	6
Body + Tail	8	5.33
Body	5	3.33
Head + Body	1	0.67

Table 4. Distribution of patients according to stage of cancer.

Stage of disease	Frequency (n)	Percentage (%)
Stage IV	112	74.56
Stage III	28	18.67
Stage II	10	6.77

(100%). The majority of our patients were seen at an advanced stage of the disease: Stage IV (74.56%) (**Table 4**). The average delay Diagnosis was 2.76 months. Fourteen of our patients (9.33%) had benefited a surgery. This surgery was curative in 35.71% of the cases (n = 5) including 4 cases of duodeno-pancreatectomy cephalic and a case of left spleno-pancreatectomy. In 64.29% (n = 9) it was palliative; It was a bilio-digestive derivation. Three cases of death two months after the operation and two cases of loss of follow-up were observed in patients who had benefited a curative surgery. The majority (90.66%) of our patients had received symptomatic treatment. It was analgesic level 2 (62.07%), morphinic (19.54%) and analgesic level 1 (18.39%).

4. Discussion

The major limitations of our study were the low rate of histological results making diagnosis been almost radiological and poor record keeping responsible for a large number of unusable medical records.

Pancreatic cancer (150 cases over a period of 16-year and four months) was rare in our study. This low frequency was reported by several African authors. Thus Bouglouga in Togo [7] and Mbengue in Senegal [5] from medical records reported 30 cases of cancers over a period of 8 years and cases 107 cases of cancers over a period of five and a half years. Moumen in Morocco [6] and El Guesmi in Tunisia [8] reported 160 cases of cancers over 9 years and 158 cases over a period of 13 years. AL-Majed in Asia [10] and Qiu [11] in the United States reported 276 cases of cancers in 10 years and 52,759 cases of cancers in eight years respectively. The high number of cancers in these developed countries could be explained by the current realization of abdominal echography and abdominal CT scan. The average age of our patients 59.09 years was close to that found by Moumen [6] in Morocco (60 years), Mbengue [5] in Senegal (60 years) and Al-Majed [10]. These data are in contradiction with those of Ntagirabiri [12]

and Raissouni [9]. Those reported an average age of 50.3 years and 44 years respectively. The male predominance observed in our study was reported by Coulibaly [4], Majid [13] and El Guesmi [8]. However, QIU [11] reported a slight female predominance. Our results showed that 20.7% of our patients were diabetic, 19.3% were alcoholics and 11.3% were cigarette smokers. Similar rates have been reported by several authors [9] [14], which could represent a risk factor for pancreatic cancer. Diabetes appears to be a moderate risk factor for pancreatic cancer, with a 40% higher risk in diabetics than in non-diabetics. Those with a diabetes duration of 2 - 8 years had the highest risk; 1.8 times more likely to develop pancreatic cancer than non-diabetics [15]. As for tobacco, its role in the pancreatic carcinogen has been well established, but its mechanism is poorly elucidated [16] [17] [18]. Chronic alcoholism causes chronic pancreatic disease and chronic disease [19] [20]. Clinical manifestations of this condition are not very specific; they are dominated in our series by epigastric pain (48%); Jaundice (44.7%) and altered general status (30%). Our results were consistent with those reported in the literature [21]. As in our study, the delayed diagnosis was observed by other authors [8] [9]. Mean time to diagnosis (2.76 months) in our study was close to that of El guesmi [8]. However, other authors reported longer delays, Bouglouga (4.4 months), Mbengue (5 months). This long delay could be explained by the clinical latency and the non-specificity of the clinical signs most often misleading the diagnosis. The cephalic localization, the most frequent (84%) in our series has been reported by Sellam [14] and Raissouni [9]. Contrary to the Western and Asian series [10] [11], which reported high rates of histological diagnosis; only 8.67% of our patients (13 cases) had histology. It was exclusively a ductal adenocarcinoma as described in the literature [14] [22]. The common practice of interventional endoscopy (Endoscopic Retrograde Cholangiography and Echoendoscopy) in these developed countries making the pancreas more accessible could explain this difference. Fourteen of our patients (9.33%) benefited from surgery; surgery was curative in 35.71% of cases and palliative in 64.29% of the cases. In the majority of cases (90.67%) the treatment was symptomatic. Similar studies in African environment reported a predominance of symptomatic treatment [7]. The overall survival in our series was 26%. Our data are in accordance with the literature [23]. Indeed, according to authors [23]. In spite of the resection the long-term survival does not exceed 25% even in the most experienced centers, making pancreatic cancer a condition with appalling prognosis.

5. Conclusion

Pancreatic cancer is rare affection with a high mortality rate. The improvement of its prognosis depends on the precocity of the diagnosis by morphological examinations (abdominal scanner) to reduce mortality.

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