



Pancreatic cancer in mid- region of Libya. Retrospective study from July 2005 to Jan 2015

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Abstract

Introduction: *the pancreas is a glandular organ of dual composition with both exocrine and endocrine components. Tumors of exocrine pancreases are rare with more than 95% being malignant.*

Methods & Materials: *this is a retrospective clinico-histopathological study of 89 cases registered in our center from July 2005 to Jan 2015. The details of patients were retrieved from patients' files. Information retrieved included socio-demographic data, clinical presentation, anatomical site, gross appearance, tumor stage, histopathological type and grade, presence of metastasis.*

Results: *during the study period, a total of 89 malignancies were registered. Of these, 48 (53.9%) were histopathologically confirmed pancreatic cancer. The diagnosis in the remaining 41 patients was based on clinical and radiological basis. Male to female ratio of 1.6:1. The age ranged from 35 to 90 years with a median age of 63 years. Fifty seven patients (64%) presented with abdominal pain, 41 patients (46%) were jaundiced. The head was the most frequent site for pancreatic tumor in 48 (54%) cases followed by tail, body. Adenocarcinoma was the most common histopathological tumor in 43(90%) patients. Thirty(33.7%) patients were presented in locally advanced stages and 54(60.6 %) patients had metastasis.*

Conclusion: *Our study was limited by being a retrospective, a relatively small number of patients and representing the experience of a single cancer center so, larger scale prospective studies are recommended to study the clinicodemographic character of this disease in the country.*

Keywords: *Pancreatic Cancer, clinical, demographic, retrospective.*

Introduction

The pancreas is a glandular organ of dual composition with both exocrine and endocrine components ^[1, 2]. Tumors of exocrine pancreases are rare with more than 95% being malignant^[3]. Several risk factors for pancreatic cancer have been identified, such as smoking^[4], age ^[5], family

history^[6], and diabetes^[7]. The majority of pancreatic cancers are of exocrine origin and majority of adenocarcinomas type, commonly involving the head and body of the pancreas ^[8]. Cancer of pancreas is most commonly seen in the 7th and 8th decades with a median age of 71 years at diagnosis. Early pancreatic cancer has no

specific symptoms and signs and there is no established screening strategy to detect it early. However, at the time of diagnosis, 24% of patients have locally advanced disease and 54% have distant metastases^[9]. The purpose of the study is to study exocrine pancreatic cancers clinico-pathologically to know the various types, grades and clinical manifestations.

Methods and Materials

This is a retrospective clinico-histopathological study of 89 cases registered in our Center from July 2005 to Jan 2015. The details of patients were retrieved from patients' files. Information retrieved included socio-demographic data, clinical presentation, anatomical site, gross appearance, tumor stage, histopathological type and grade, presence of metastasis.

Results

During the study period, a total of 89 malignancies were registered. Of these, 48 (53.9%) were histopathologically confirmed pancreatic cancer. The diagnosis in the remaining 41 patients was based on clinical and radiological basis. The number of males was 55 (62%) and the number of females was 34 (38%) with a male to female ratio of 1.6:1. The age ranged from 35 to 90 years with a median age of 63 years. Table 1.

Table 1 Demographic data of 135 patients with colorectal Cancer.

Gender	
Male	55 (62%)
Female	34 (38%)
Mean age (SD), range	63

Fifty seven patients (64%) presented with abdominal pain, 41 patients (46%) were jaundiced, 29 patients (32%). Thirty seven patients (42%) had history of diabetes and 41 patients (46%) are smokers. Table (2).

Table 2 Distribution of patients according to clinical presentation

Symptoms & Signs	No (%)
Abdominal pain	57 (64%)
Obstructive Jaundice	41 (46%)
Loss of weight	29 (32%)
Anorexia	23 (26%)
Nausea & Vomiting	21 (23%)
Malaise	07 (7%)
Dyspnea & Cough	05 (5%)
Fever	02 (2%)
Subcutaneous nodules	01 (1%)
PMH Diabetes	37 (42%)
History of smoking	41 (46%)

The head was the most frequent site for pancreatic tumor in 48 (54%) cases followed by tail, body and diffuse in 10 (11%), 8 (9%) and 23 (25%) cases, respect. Table 3.

Table 3 show site distribution of pancreatic cancer.

Site of tumors	No (%)
Head	48 (54%)
Tail	10 (11%)
Body	8 (9%)
More than one subsite (Diffuse)	23 (25%)

Microscopically, adenocarcinoma was the most common histopathological type in 43 (90%) patients. Carcinoid, Mucinous cystadenocarcinoma and acinar cell carcinomas accounted for 2 (4%), 1 (2%) and 1 (2%) patients, respectively. Only one patient (2%) was mixed adenocarcinoma and carcinoid. Table 4.

Table 4 show histopathology types

Histopathology*	No (%)
Adenocarcinoma	43 (90%)
Carcinoid	2 (4%)
Mucinous cyst adenocarcinoma	1 (2%)
Acinar cell carcinoma	1 (2%)
Mixed adenocarcinoma & carcinoid	1 (2%)

*Histopathology was confirmed in 48 patients.

Regarding extent of disease, only 5 (5.6%) patients were identified as being in early stages, 30 (33.7%) patients were presented in locally advanced stages and 54 (60.6%) patients had metastasis. Table 5.

Table 5 show extent of the disease.

Extent of disease	No (%)
Early stage	5 (5.6%)
Locally advanced	30(33.7%)
Metastasis	54(60.7%)

Discussion

The two main demographic risk factors for pancreatic cancer are advancing age and male gender^[10]. In the present study, the median age was 63 years and majority of cases of adenocarcinomas were found in the fifth and seventh decade (41.7% each). Compared to the median age of 72 years in United State^[11], our patients present at approximately 9 years younger median age. This may be attributed to overall younger population pool in Libya or may be due to different biology of the cancer. Doherty et al^[12] showed that seventy five (75%) of pancreatic cancer patients presented with weight loss, obstructive jaundice and upper abdominal pain. Upper abdominal pain (53%) and weight loss (40%) were also common first symptoms^[13]. In our study, sixty-four percent (64%) of pancreatic cancer patient presented with abdominal pain, 46% with obstructive jaundice and 32% with loss of weight. Other modes of presentations in our study were anorexia (23 patients 26%), nausea & vomiting (21 patients 25%), Malaise (7 patients 7%), Dyspnea & cough (5 patients 5%), fever (2 patients 2%) and subcutaneous nodules (one patient, 1%). No patients in our study were presented with bone pain. Diabetes mellitus and cigarette smoking may be possible risk factors for development of carcinoma of exocrine pancreas^[14]. In this study there was 37 cases (42%) had diabetes mellitus and 41 cases (46%) were smokers. The majority of pancreatic cancers are adenocarcinomas. These tumours originate in the epithelial cells lining the pancreatic duct, form gland-like structures, and account for 90% of all pancreatic cancers^[1,15,16]. In the present study, adenocarcinoma constituted the majority (90% patients) and is comparable to the study by Kumar NV^[17] in which (89.7%) of cases were adenocarcinomas. Almost one third of our patients

present at advanced stage and sixty percent present with distant metastasis compared to 53% in United States of America^[18]. This may be due to the scarcity of specialized centers and investigations facilities so, a considerable number of patients remain undiagnosed or diagnosed at the advanced stage of the disease.

Conclusion

The study was limited by its retrospective nature, a relatively smaller number of patients and representing the experience of a single cancer center so, larger scale prospective studies are recommended to study the clinical and demographic character of this disease in the country.

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