

# CARCINOMA OF THE PANCREAS: A REVIEW OF AUTOPSY MATERIAL AT THE KORLE BU TEACHING HOSPITAL FOR THE PERIOD 1972-1981

By

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## Summary

*A retrospective study of autopsies has been carried out and this shows the death rate from pancreatic carcinoma to be 5.8% of all cancer deaths in the Korle Bu Teaching Hospital Mortuary between the period 1972-1981. This relatively high incidence would lend support to findings of other studies which indicate that the disease is more common in US blacks and some parts of Africa. The high case fatality rate as found in our hospital-based cancer registry coupled with the increasing trend in females in recent years indicate that the disease requires a closer study from the point of view of aetiology and natural history in Ghana. The greater preference to the head of the pancreas would obviously pose problems to effective management.*

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Key Words: Carcinoma of Pancreas

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## Introduction

Cancer of the pancreas is said to have a low incidence in the tropics.<sup>1</sup> On the whole it has been observed to be a relatively rare neoplasm making up only 1-2% of all forms of cancer<sup>2</sup>. Recently other workers in North America have reported an increasing trend in the incidence of carcinoma of the pancreas<sup>3-4</sup>. However reports from West Africa on carcinoma of the pancreas have been scanty.<sup>5</sup>

This paper reports the incidence of carcinoma of the pancreas based on autopsy findings at the Korle Bu Teaching Hospital, Accra, over a 10-year period: 1972-1981.

## Materials and Method

Autopsy records (from 1972-1981) of the Pathology Department of the Korle Bu Teaching Hospital, Accra were examined. Autopsy cases in this hospital include coroner's cases from Accra and outlying areas. Such cases account for 50-60% of all cases admitted to the mortuary. A significant proportion of these are due to violence including road traffic accidents and these were excluded from the study.

Deaths from all cancers for all age groups were included in the study. Out of these, deaths due to cancer of the pancreas were determined. Relevant information on each case of cancer of pancreas was noted such as age, sex, site of tumour. (see tables 1-3):

## Results

For the period under study, 25 234 autopsies were performed at the Korle Bu Teaching Hospital Mortuary representing deaths from all causes and in all age groups (an average yearly autopsy rate of 2 523). Of this total, 22 839 were due to non-traumatic causes.

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TABLE 1  
Yearly Distribution of non-traumatic deaths  
and cancer death

Year	Non-traumatic deaths	All cancer deaths	Percentage death rate from all cancers
1972	2255	128	5.6
1973	2705	111	4.1
1974	1965	110	5.6
1975	2421	145	5.9
1976	2543	82	3.2
1977	2284	104	4.6
1978	1969	102	5.2
1979	2288	95	4.2
1980	2528	86	3.4
1981	1881	63	3.3
TOTAL	22 839	1 026	4.5 (average)

TABLE 2  
Yearly Distribution of Deaths from  
Cancers including Cancer of the Pancreas

Year	Deaths from all cancers	Deaths from cancer of the pancreas	Percentage death rate from cancer of the pancreas
1972	128	4	3.1
1973	111	6	5.4
1974	110	3	2.7
1975	145	8	5.5
1976	82	2	2.4
1977	104	8	7.7
1978	102	9	8.8
1979	95	8	8.4
1980	86	6	7.0
1981	63	6	9.5
TOTAL	1026	60	5.8 (average)

TABLE 3  
Age distribution of death due to cancer of the pancreas

Age Range (years)	Number of Cases	%
0 - 20	0	0
21 - 30	1	1.7
31 - 50	18	30
51 - 70	31	51.6
71 - 90	5	8.4
Age not stated	5	8.3
Total	60	100.0



There was a total of 1 026 deaths from all types of cancer representing 4.5% of non-traumatic deaths, and the yearly breakdown is shown in Table 2. Pancreatic cancer, therefore represents 5.8% of all cancers seen at autopsy in the Korle Bu Teaching Hospital Mortuary.

The age distribution is shown in Table 3. Approximately 65% of these cancers had occurred by the age of 60 years, with a peak incidence at 55 years.

Of the 27 cases in which the site of tumour was specified, 24 occurred in the head, 3 in the body and none in the tail. The site was not specified in the remaining 33 cases.

### Discussion

A cancer registry based in the Korle Bu Teaching Hospital<sup>6</sup> has recorded a case fatality for carcinoma of the pancreas of 93.3% and it is the 8th commonest cause of cancer death in Ghana. The relatively high incidence - 5.8% of all cancers and the high mortality rate (93.3%) of pancreatic carcinoma, warrants a closer monitoring of the disease in the general Ghanaian population.

Cancer of the pancreas has been quoted as representing 3-6% of all cancer deaths. It represents 5.2% of all cancer deaths in the USA and the highest incidence has been reported in Sweden.<sup>7</sup> In this study the incidence of 5.8% of all cancer deaths is close to the upper limit of this range. Cancer of the pancreas has a higher prevalence rate among blacks of the USA being 3.8% in the general population as against 2.9% in whites.

### Age and Sex Distribution

As noted by Ackerman and del Regato<sup>2</sup> in the USA, the tumour is rare in young people and is practically never

found in patients under 25 years of age. In this study, there were no cases in the first two decades. The only case in the third decade was a 21 year old male. The incidence of the tumour then rose rapidly in the fourth decade to reach a peak in the sixth decade (Table 3). This age distribution is similar to that found by other workers.<sup>1,4,5,7</sup> In their study in the USA Levin et al<sup>4</sup> and Devesa and Silverman have<sup>9</sup> noted a significant rise in females in recent years. In a ten-year study by Solanke<sup>5</sup> in Nigerians, the male: female ratio was 1.2:1. However, in this study the male: female ratio was 38:17 or approximately 2:1.

### Site of Tumour

Although the site of the tumour was not specified in over half of the cases in this study, in the twenty seven cases in which it was specified twenty four (89%) occurred in the head, thus emphasising the claim by other workers that a large majority of cancers of the pancreas involved the head.<sup>5,8,10</sup> There were three cases involving the body representing 11% and no cancer involving the tail of the pancreas. When compared to figures of Robbins and Cotran<sup>7</sup> i.e., 60-70% in the head, 20-30% in the body and 5-10% in the tail, it would appear that carcinomas of the pancreas in Ghana have a greater predilection to the head than to the other parts of the pancreas.

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