

Original Research Article

Gallbladder Carcinoma in Ghana: Histopathological Examination of Cholecystectomy Specimen.

Abstract

Objective: The aim of the study was to find out the incidence of gallbladder carcinoma in cholecystectomy specimen and the histological types from Korle-Bu Teaching Hospital, Ghana
Method: The study was a retrospective study using findings from 507 cholecystectomy specimen that were received at the Department of Pathology, Korle-Bu Teaching Hospital from 2006 – 2013.
Findings: The commonest histological type of malignancy reported was adenocarcinoma, the mean age at presentation was 65.3 years (SD $\pm$ 11.9 years) with the commonest clinical presentation being right hypochondrium pain.
Conclusion: The histopathological classification of gall bladder carcinoma in Ghanaian does not differ much from reported cases.

Keyword: *gallbladder, carcinoma, cholecystectomy*

INTRODUCTION

Gallbladder carcinoma is the commonest malignancy of the biliary tract and the fifth most common malignancy of the gastrointestinal tract [1, 2]. The incidence of gallbladder carcinoma varies greatly with regards to age, gender, racial, and geographical location [3]. This malignancy is generally described as a disease of the elderly with the highest incidence in the seventh decade of life [3] and affects women two to six times more commonly than men [4]. High prevalence rates are reported in Chile, Mexico, Bolivia, Northern India, Israel and Poland with much lower rates reported in countries such as Nigeria, Singapore and New Zealand [3].

Symptoms and signs of gallbladder malignancy are usually vague and non-specific, often appearing late in the course of the disease thus making it very difficult to diagnose early, as such they often present at advanced stages.

The 5-year survival rate for the carcinoma lies between 0% and 10% [1, 3, 5]. The poor prognosis of this disease is due to the anatomical position of the gallbladder coupled with the fact that it lacks a serosa where it is in contact with the liver, as well as the fact that a high proportion of tumours are advanced at the time of presentation [1, 6].

There appears to be no work done in Ghana on gallbladder cancers, and therefore this study seeks to throw light on the disease and the histological type of cancer seen in Ghanaian population.

MATERIALS AND METHODS

The study was a retrospective study using findings from histopathological examinations of cholecystectomy specimen that were received at the Department of Pathology, Korle-Bu teaching hospital from 2006 – 2013. In addition the following data were retrieved from patients folders; patients age, sex and presenting symptoms.

RESULTS

Over the 8-year period the department received 507 cholecystectomy specimen out of which 16 were malignant representing 3.15% of all specimen. Of the 16 malignant cases, 3 were males and 13 females, the ratio of female to males being 4.3:1

The mean age at presentation was 65.3 years (SD $\pm$ 11.9 years) with range of 50-89 years.

Table 1 Histological Types of Gallbladder Carcinoma Detected

Histopathological Type	Frequency (%)
Adenocarcinoma	12 (75)
Undifferentiated	2 (12.5)
Squamous	1 (6.3)
Adenosquamous	1 (6.3)

Table 2 Symptoms of gallbladder carcinoma

Symptom	Frequency (%)
Right hypochondrium pain	9 (56.3)
Jaundice	4 (25)
Right hypochondrium mass	3 (18.8)

DISCUSSION

Over the 8 year period the department received 507 cholecystectomy specimen of which 16 cases were malignant representing 3.15% of all specimen, this value is lower than 7.75% reported by Chianakwana [7] who conducted a similar study in 271 cholecystectomy specimen in Nigeria. Gallbladder cancer is reported to affect women two to six times more commonly than men [4]. In our study the ratio of male to female was 1:4.3. This compares to the ratio reported in literature but is higher than the 1:2.5 reported by Chianakwana [7]

The commonest histological type of malignancy reported was adenocarcinoma (75%) which agrees with what is reported in literature [7-9]. The other histological types that were observed in the study include; undifferentiated, squamous and adenosquamous carcinomas. Rare tumours such as carcinoid tumours, lymphomas or sarcomas which have been reported by some studies (10, 11) were not found in this study.

Though the clinical presentation of gallbladder malignancy is nonspecific, previous research has found right hypochondrium pain is the most frequently reported complaint amongst patient, [1, 7, 8] this was also true for this study where 56.3% presented with at the clinic with right hypochondrium pain. Literature puts nausea accompanied by vomiting as the second most reported symptom, however in our study the second most reported symptom was jaundice (25%) followed by right hypochondrium mass (18.8%)

Jaundice and a palpable right hypochondrial mass are believed to indicate an advanced disease state [1], suggesting that most patient with gallbladder malignancy in Ghana may report to hospital very late when the disease is in a highly advanced stage

Gallbladder carcinoma is generally believed to be a disease of the elderly with most studies reporting its peak incidences in the sixth and seventh decades of life [1, 2, 7, and 8]. The mean age of diagnosis in our study was 65.3 years and concurs with the findings of earlier studies [1, 2, 7, and 8].

CONCLUSION

The findings of this study show that in terms of presentation, gender and age distribution as well as in histopathological classification gallbladder carcinomas amongst Ghanaian does not differ much from what is reported in literature. In future gallbladder carcinoma studies in Ghana should be directed at survival rate and best treatment regimen.

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