
SURGICAL MANAGEMENT OF CARCINOMA GALL BLADDER

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ABSTRACT

Objectives: To evaluate surgical management of Ca gall bladder in patients with gall stones.

Material and Methods: This prospective study of surgical management of Ca Gall Bladder was conducted in Surgical A unit of Khyber Teaching Hospital, Peshawar from January 2001 to May 2002. A total number of 24 patients with male to female ratio of 1:2 were treated during this period.

Results: Main presentation on admission was jaundice, mass right hypochondrium, in 4 patient out of 24. The diagnosis of Ca gall bladder was made pre operatively. In all patient gallstones were present. Four patients underwent cholecystectomy. In these patients gall bladder was opened and a suspicious nodule was found, and the diagnosis was confirmed on histopathology. In twenty patients, there was advanced Ca gall bladder and only biopsy was taken and histopathology confirmed the diagnosis of adenocarcinoma bladder. One patient died on the 3rd postoperative day.

Conclusion: A high incidence of Ca gall bladder (13.7%) in cholecystectomies was found with 100% cholelithiasis. Majority of the patients had advanced Ca with metastasis.

Key words: Adenocarcinoma gall bladder, Cholelithiasis.

INTRODUCTION

Carcinoma of the gall bladder is relatively uncommon, but a very lethal disease. It is the most common malignancy

of the biliary tract and the fourth commonest of the G.I.T. after colorectal, pancreatic and gastro esophageal tumors.¹ Carcinoma of the gall bladder has predilection for elderly patients with female to male ratio of

3:1² when younger patients are affected the prognosis is even more poor.³ It is found in approximately 1% of cholecystectomies in U.K.⁴ Despite modern diagnostic technique, better pre and post operative care and more aggressive surgical approach, the disease still has rapidly aggressive course. The early stage of the disease is silent, presentation is non-specific and that is why it is diagnosed late. Even in developed countries where facilities of radical surgery are available, 60-90% of these tumors are wide spread at the time of diagnosis.⁵ The best chance of cure of Ca. gall bladder is its diagnosis in early stages. Ultrasound is of great help in early pre operative diagnosis of the Ca. Gall bladder. Gall bladder specimen sent routinely for histopathological examination reveals malignancy in about 1-2%.⁶ That is why it is recommended that every gall bladder removed should be opened, any suspicious lesion should be examined histopathologically by taking frozen sections. If malignancy is diagnosed the extent of it spread should be ascertained and the operation planned accordingly. If only mucosa is involved simple cholecystectomy is curative if muscularis is involved, but serosa is normal then cholecystectomy and wedge resection of the gall bladder fossa is recommended, for spread beyond serosa more aggressive surgical procedure like extended and radical cholecystectomy should be performed.² Although some authors have recommended radical surgery for gall bladder carcinoma the long term benefit has not been satisfactory. Thus the advantages of radical surgery for cancer of the gall bladder remains controversial.⁵ When the disease is wide spread palliative procedure like biliary enteric anastomosis and endoprosthesis are other alternatives.⁷ Radiotherapy and chemotherapy are not very helpful in the treatment of carcinoma gall bladder.

MATERIAL AND METHODS

A prospective study of "Hepato-biliary" (Carcinoma Gall Bladder) was carried out in the surgical "A" unit of Khyber Teaching Hospital, Peshawar from January 2001 to 21st May 2002. During this period of 17 months a total number of 24 patients of carcinoma of gall bladder were admitted to this unit. A proforma was made. In this proforma all the informations relevant to hepato-biliary diseases were enlisted. The proforma was filled by Trainee Medical Officer and then collected and stored. The following investigations were done of each and every patient. Full blood count, Blood urea, Sugar, Urine analysis, Serum creatinine, Serum electrolyte, LFTs, and ultra-sonography. In 2 cases CT was carried out. These patients were operated by a consultant surgeon. All the gall bladders were sent for histopathology and the reports were attached to the proforma.

RESULTS

During the period of study, which is still in progress, a total number of 230 patients of Hepato-biliary diseases were admitted. A total number of 175 cholecystectomies were performed. Twenty-four patients (13.7%) were of Ca. Gall bladder. The youngest patient was 40 years of age and oldest 70 years with a average age 54.8 years. The male to female ratio was 1:2. Preoperative diagnosis was made only in 4 patients (16.6%). In rest of the patients the diagnosis of carcinoma gall bladder was made on lapratomy and confirmed on histopathological examination. Presentation of patients was; Jaundice with mass right hypochondrium 16 patients (66.6%) and pain right hypochondrium 8 patients (33.3%). In two patients (8.3%) ultrasound could diagnose Ca. Gall bladder. C.T of

the abdomen was done in two patients in both these patients diagnosis was made preop.

All patients had gallstones. Twenty out of 24 (83.8%) had, wide spread diseases at lapratomy and only biopsy was taken which was reported adenocarcinoma of the gall bladder. Cholecystectomy was feasible in only four patients (16.6%). No further surgery was done after the histopathological diagnosis in these patients. Average hospital stay was 7 days and only one patient stayed for 16 days in the hospital. One patient died on the 3rd post-operative day.

DISCUSSION

Carcinoma of the gall bladder is a disease of poor prognosis. It is an uncommon gastrointestinal malignancy. The disease presents with non-specific symptoms and sign and pre-operative diagnosis is rare. Most patients present late and at this stage only palliative treatment is possible. The incidence of carcinomas in the cholecystectomies performed for any reason was 13.7% in our study. Boughri et al in 1995 reported an incidence of 6.39%, this incidence is 1.21% in the Western literature.¹ This high incidence in our study may be due to some unknown carcinogenic factor. Bassam Abi Rached et al in 1995 also reported 6 times high incidence in American Indian than non-Indians. The highest incidence of carcinoma gall bladder in our study was in the 6th decade of life. The average age was 54.8 years. The average age was 49.9 years in the study of Bhurghi et al 1995 and 72.2 years in Carty and Johnson study in 1991. The incidence of carcinoma of gall bladder increases with age. It is 3% in those under 50 years of age. 3.8% in those over 50 years old and 8.8% in those older than 65 years of age.⁸ The male to female ratio was 1:2 in our study. It was 1:5 in Bhurghi et al 1995

study and 1:3 in the study of Carty and Johnson 1991. Male to female ratio was 1:6 in the study of Ahmad G et al in 1998. Cholelithiasis is found in 68% to 98% patients with gall bladder carcinoma.^{9,10} In our study cancer associated with gallstone was 100%. Interestingly carcinoma increases directly with the size of stone.¹¹ The high incidence of gallstones with Ca. Gall bladder shows that gallstones may be a probable etiological factor. In our study carcinoma of the gall bladder was diagnosed in 8.3% pre-operatively. Bhurghi et al 1995 have reported 19% and in the study of Aretaxabala et al 1994 15% carcinoma gall were diagnosed pre-operatively by the ultrasound. The poor sensitivity of ultrasound in our study may be due to the inexperience ultrasonographer. Majority of gall bladder cancer are beyond the scope of curative operation at the time of presentation.⁵ In our study majority of the patient had advanced carcinoma with metastasis and curative resection was not possible. Aggressive surgery in advanced cancer should be avoided in the presence of distant metastasis.⁵ In our study in 83.8% patient the disease was at Nevin stage V and only biopsy was taken. Only 16.6% patients were at Nevin stage I, and II, and in these patients cholecystectomy was performed which is almost curative at this stage of the disease, though controversy exist at as whether simple cholecystectomy or radial cholecystectomy should be performed in stage I to III. All the biopsies were reported as adenocarcinoma in our study. The incidence of adenocarcinoma was 95% in Webbenemeyer et al 1995 and 98% in Ahmad G 1998. This non-existence of other types of gall bladder tumours in our study is probably to the limited number of patients in our study. Chemotherapy and radiotherapy was not given to our patient because this modality of treatment does not affect the prognosis.

REFERENCES

1. Carty NJ, Johonston CD. Carcinoma of the gall bladder. A survey of cases in Wessex J R Coll Surg Edinb 1991; 36: 238.
2. Jones SR Carcinoma gall bladder. Surgical Clinics of North America. 1990; 70(6): 1419.
3. Aretaxabala XD, Roal, Araxa JC, Burgos L, Flores P, Wistuba I, et al. Gall bladder cancer in patients less than 40 years old Br J Surg 1996; 81: 111.
4. Paraskevopoulos JA, Bryan Ross, Dennison AR, Johonson A.G. Primary Carcinoma of the gall bladder. A 10 years experience. Ann R Coll Surg Eng 1992; 74: 222.
5. Donohue JH, Nagorany DM, Grant CS, Tsushima K, Adnon MA. Carcinoma of gall bladder – Does radical resection improve outcome Arch Surg 1995; 125: 237.
6. Collier NA, Blumgart LH. Tumours of the gall bladder in Blumgart LH, Liver and biliary tract surgery 1st Ed Churchill Livingstone London. 1988; 11: 819.
7. Dawson JL, Heaton ND. Carcinoma of the biliary tree and gall bladder. Surg. 1992; 10: 84.
8. Thorbjarnarson B, Glen F. Carcinoma of the gall bladder. Cancer 1959; 1009.
9. Silk YN, Douglas HO, Nava HR, et al. Carcinoma of the gall bladder. The Rosswell Park experience. Ann Surg 1989; 210: 751.
10. Perpetuo MO, Valdivieso M, Helburn LK, et al. Natural history study of gall bladder cancer. Cancer 1978; 42: 330.
11. Dielh AK. Gall stone size and the risk of gall bladder cancer. JAMA 1983; 250: 2323.

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