CLINICAL ASPECTS OF CHOLANGIOCARCINOMA AND ITS COMPARISON WITH HEPATOCELLULAR CARCINOMA

Pages with reference to book, From 209 To 211

Huma Qureshi, Sarwar J Zuberi (Department of Pathology, Basic Medical Sciences Institute, Karachi-35.)
N.A. Jafarey (PMRC Research Centre, Basic Medical Sciences Institute, Karachi-35.)
S.H. Manzoor Zaidi (Department of Radiotherapy, Jinnah Postgraduate Medical Centre, Karachi-35.)

Abstract

Fiftynine biopsy proven cholangiocarcinomas were seen over 16 years. Maximum cases belonged to 41-50 years age group, and there was no sex difference. Common presenting features were abdominal pain, hepatomegaly and jaundice. Liver scan revealed cold area in 80% cases. Follow up was available in 42% cases, all of whom died within 6 months of first examination. The frequency of abdominal mass, hepatomegaly and jaundice was high in cholangiocarcinoma group ($P < 0.05$) than in hepatocellular group, while anorexia and weight loss was more pronounced in the latter group. Biochemically cholangiocar cinomas showed significantly higher values of total (JPMA 38: 209, 1988).

INTRODUcTION

Hepatocellular, cholangiocellular and hepatocholangiocellular carcinomas are the 3 major types of primary liver carcinomas[1-5]. It is often difficult to differentiate between these types because of considerable overlap in the clinical features and laboratory findings[6]. Cholangiography and aiphafetoprotein determination usually help in differentiating hepatocellular from cholan giocellular carcinoma in most cases. The mixed form often behaves like hepatocellular carcinoma and should therefore be dealt likewise[6].

Comparison of clinical features and biochemical findings of 59 cholangiocarcinomas (CC) with 366 hepatocellular carcinomas (HCC) is presented here.

Statistical analysis was done using Chi square and student 't' tests.

PATIENTS AND METHODS

History and physical findings of 425 patients with liver cancer were recorded on a standard proforma and blood taken for haemoglobin, total leucocyte and platelet counts and prothrombin time. Standard liver function tests including total proteins, albumin and globulin fractions were also done. Aiphafetoproteins using RIA method was done in a selected number of cases.

Liver biopsy was done in all the cases using Menghini's technique,[7] and only histologically confirmed cases were included in the study. Once the diagnosis was made, all cases were referred either to the radiotherapy department for chemo and conjugated bilirubin than hepatocellular group therapy or to their respective physicians for further management. Follow up was done at the end of each year by personal visit or a letter sent to the given address of the patient.

RESULTS

From August 1969 to December 1985, 59 biopsy proven cholangiocarcinomas (CC) and 366

hepatocholangiocarcinomas (HCC), including 3 hepatochojangiocarcinomas were seen. The ratio of HCC: CC was 6.2:1. Of 59 CC, the youngest patient was a 15 months old female. Maximum cases belonged to 41-50 years age group with no sex difference. Of 366 HCC, the youngest was a 5 years old female. Maximum frequency occurred a decade later than CC, and the male to female ratio was 2.5: 1, showing a male predominance. Past history of jaundice was present in 16.94% CC and 9.5% HCC. The frequency of right hypochondric mass, jaundice and pruritus were more marked in CC group (Table I).

TABLE– 1. Signs and Symptoms.

Signs & Symptoms	Cholangiocarcinoma No (%) (59)		Hepatocellular-carcinoma (366) No (%)
Abd. Mass (Hepatomegaly)	57 (96.6)	*	310 (84.7)
Abd. Pain	48 (81.35)		290 (79.2)
Wt. loss	26 (44)	*	237 (64.8)
Anorexia	23 (38.9)	*	202 (55.2)
Jaundice	33 (55.9)	*	143 (39)
Fever	18 (30.5)		132 (36.1)
Ascites	11 (18.6)	*	115 (31.6)
Abd. vein	3 (5)		16 (4.4)
Hepatosplenomegaly	2 (3.3)		35 (9.5)
Palmer Erythema	1 (1.6)		16 (4.4)
Spider Angiomas	–		2 (0.5)
Scanty body hair	–		1 (0.3)
Oesophageal varices	–		2
Pruritus	5 (8.4)		0

* = $P < 0.05$

Signs of cirrhosis and portal hypertension were infrequent in both the groups. Haematological value did not show any significant difference. Total and conjugated bilirubin were markedly elevated in the CC group (PL 0.05). Total proteins were within normal limits and globulin fraction was raised in both the groups (Table II).

TABLE–II. Haematological and Biochemical Studies.

	Cholangiocarcinoma Mean ± S.E.	Hepatocellular Carcinoma Mean ± S.E.
Hb	11.66 ± 0.33	11.59 ± 0.13
TLC	12,839±2110,31	10,577 ±846.40
Platelets	222.24±12.6	201.94 ±5.24
P. Time	19.11 ±1.08	18.33 ±0.62
Billirubin	100.88 ±18.41*	62.13 ±6.20
Conjugated	77.5 ±14.13*	45.77 ±5.49
SGOT	98.63 ±13.52	132.72 ±12.41
SGPT	45.97 ±8.34	62.32 ±4.39
Alk. Phosp.	92.04 ±12.15	101.22 ±4.15
Proteins	70.23 ±1.54	67.58 ±0.58
Globulins	32.89 ±1.46	34.56 ±0.69

* $P < 0.05$

Liver scan was available in 40 cases of CC. Of these 32 (80%) showed a cold area, mostly in the right lobe. Multiple cold areas were seen in 1 and none in 4 cases. Site of cold area was not mentioned in 3 cases. Aiphafetoprotein determination by RIA showed raised titres (more than 200 ngms/ml) in 4 (50%) cases, the individual values being 300, 575, 750 and 280,000 ngms/ml respectively. While in HCC 60% cases had AFP levels of more than 200 ngms/ml. Only i patient underwent percutaneous transhepatic cholangiography followed by external biliary drainage. Followup was available in 25 (42 3%) cases, all of whom died within 6 months of first examination. Rest of the cases were lost to followup either due to wrong addresses or change of residence.

DISCUSSION

The frequency of CC in United States[1,4,8,9] Mexico[10], United Kingdom[11] is around 20% in Singapore,[12] Japan[13] and African blacks[5] its frequency is 7.7,9.5 and 2.5% respectively and in this series it is 13.8%. Most studies on CC show minor sex difference with a slight male predominance. In the present study male to female ratio was 1: 1 .1, showing a slight female predominance. Maximum

frequency occurred a decade earlier than that of hepatocellular group, which is in contrast to most of the studies which show maximum involvement a decade later than that of HCC group.

On autopsy, the association of gall stones with bile duct carcinoma varies between 17.5 — 41 .3[6,14]. Necropsy not being done in Pakistan, the frequency of gall stones in CC is not known. In Pakistan it is often difficult to differentiate between HCC and' CC group because procedures like celiac axis arteriography, endoscopic or transhepatic cholangiography are not done routinely in suspected cases. Both the groups present with hepatomegaly and deranged liver function test. Alkaline phosphatase is raised in both the groups and liver scan is not very helpful. The differentiation, therefore, totally depends on histology. In the absence of autopsy a planned work up is necessary to differentiate the type of hepatic malignancy.

REFERENCES

1. Edmondson, HA. and Steiner, P.E. Primary carcinoma of the liver. A study of 100 cases among 48,900 necropsies. Cancer, 1954; 51:462.
2. Gall, E.A. Tumours of the liver, in diseases of the liver. Edited by L. Chiff, Philadelphia, Lippincott 1969 P. 835.
3. Mori, W. and Nagasako, K. Cholangiocarcinotna and related lesions, in hepatoceliular carcinoma. Edited by K. Okuda, R.L. Peters. New York, John Wiley, 1976, p. 227.
4. Patton, R.B. and Horn, R.C. Jr. Primary liver carcinoma. Autopsy study of 60 cases. Cancer, 1961; 17:757.
5. Steiner, P.E. Cancer of the liver and cirrhosis in trans-saharan Africa and the United States of America. Cancer, 1960; 13:1085.
6. Okuda, K., Kubo, Y., Okazaki, N., Arishima, T, Hashimoto, M., Jinnouchi, S., Sawa, Y., Shimokawa, Y., Nakajima, Y., Noguchi, T., Nakano, M., Kojiro, M. and Nakashima, T. Clinical aspects of intrahepatic bile duct carcinoma including hilar carcinoma. A study of 57 autopsy proven cases. Cancer, 1977; 39:2 32.
7. Menghini, G. One.second needle biopsy of the liver. Gastroenterology, 1958; 35:190.
8, Hoyne, R.M., Kernohan, J.W. Primary carcinoma of the liver a study of thirty-one cases. Arch. Intern . Med., 1957; 99 : 532. MacDonald, R.A. Cirrhosis and primary carcinoma of the liver; changes in their occurrence at the Boston city Hospital 1897—1954. N. Engi. J. Med., 1956; 225: 1179.
10. Lopez-Corela, E., Ridaura-Sanz, C. and AlboresSaavedra, J. Primary carcinoma of the liver and biliary tract. Br. J. Cancer, 1956; 10:232.
11. Cruickshank, A.H. The pathology of 111 cases of primary hepatic malignancies collected in the Liverpool region. J. Clin. Pathol., 1961; 14:120.
12. Shanmugaratnam, K. Primary carcinoma of the liver and biliary tract. Br. J. Cancer, 1956; 10: 232.
13. Okuda, K. and Liver Cancer Study Group of Japan. Primary liver cancers in Japan. Cancer, 1980; 45 :2663.
14. Kuwayti, K., Baggenstoss, A.H., Stauffer, MM. and Priestly, J.T. Carcinoma of the major intra-hepatic and extrahepatic bile ducts exclusive of papilla of Vater. Surg. Gynecol. Obstet., 1957; 104:357.