Hepatic Disorders

144 Hepatic Venous Out ow Obstruction (Budd-Chiari Syndrome): Case Series
Pruthvi BC, Rajendraprasad R, Shetty Shivakumar M, Govindiah H, Sridhar KM
Government Medical College, Mysore

Five cases of Budd-chiari syndrome presented to K.R. Hospital, Mysore during 18 months. For all the cases, thorough history was taken, clinical examination and relevant investigations (LFT, USG, CT, MRI, etc.) were done. Though membranous IVC obstruction and myeloproliferative disorders were the common causes in India, no such etiologies were found in the present series.

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Age</th>
<th>Sex</th>
<th>Duration</th>
<th>Clinical findings</th>
<th>Etiology</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>30 yrs.</td>
<td>Female</td>
<td>Acute</td>
<td>Ascites, hepatomegaly</td>
<td>Hypercoagulable state of puerperium</td>
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<tr>
<td>2.</td>
<td>22 yrs.</td>
<td>Female</td>
<td>Chronic</td>
<td>Ascites, hepatomegaly, engorged veins</td>
<td>Antiphospholipid syndrome</td>
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<tr>
<td>3.</td>
<td>40 yrs.</td>
<td>Female</td>
<td>Chronic</td>
<td>Ascites, hepatomegaly, engorged veins</td>
<td>Idiopathic</td>
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<tr>
<td>4.</td>
<td>20 yrs.</td>
<td>Female</td>
<td>Acute</td>
<td>Ascites</td>
<td>Oral contraceptive pills</td>
</tr>
<tr>
<td>5.</td>
<td>14 yrs.</td>
<td>Female</td>
<td>Acute</td>
<td>Ascites, hepatomegaly</td>
<td>Idiopathic</td>
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</table>

145 Ursodeoxycholic Acid in Alcoholic Liver Disease
Chhaya Niraj A
Jaslok Hospital and Research Centre, Mumbai.

Alcoholic liver disease is one of the manifestations of chronic alcoholism. It contributes significantly to morbidity and mortality. In order to assess progress and outcome of alcoholic liver disease, 50 patients of chronic alcoholism were studied. Their ages ranged between 40-50 years, whereas duration of alcohol ingestion was more than 10 years. All patients were evaluated clinically and relevant biochemical investigations were done. At the time of inclusion, all showed icterus and hepatomegaly. Their LFT and serum protein values were deranged. Of these 50 cases, 25 were advised alcohol abstinence, balanced diet and multi-vitamins whereas remaining 25 were also given ursodeoxycholic acid 300mg twice daily for 2-3 months. The patients were followed up every month for 4 months. During evaluation, clinical well-being, icterus, hepatomegaly, LFT, serum proteins and clinical complications were noted. At the end of first month, both the groups showed almost similar type of recovery. But during subsequent follow-up, the first group showed slow recovery, two patients showed deepening of icterus whereas one patient progressed to hepatic encephalopathy. No such complications were noted in the second group. At the end of 4 months, improvement occurred in s. bilirubin, SGOT, SGPT and s. proteins in both the groups but improvement was statistically significant in the patients who received ursodeoxycholic acid. The details will be presented and relevant literature reviewed in brief.

146 Cirrhosis of Liver in Patients from North-East Region - An Observational Study
Chattopadhyay T, Gogoi GN, Das A
Assam Medical College and Hospital, Dibrugarh.

Introduction: Increasing number of people are developing cirrhosis of liver and presenting with fatal complications. Since data regarding the etiology of cirrhosis of liver is lacking from the North-East region so this observational study was conducted to determine clinical profile and etiology of cirrhosis of liver.

Methodology: 211 (M=159, F=52) patients hospitalised with Cirrhosis of liver and its complications during a period from May 1998 May 2003 were included. All cases were diagnosed by appropriate clinical, radiological and histological examination. Investigations included virological marker (HBsAg, Anti-HCV), ANA, SMA, p-ANCA, anti-mitochondrial antibody in addition to LFT and ultrasonography.

Results and Observations: Age varied from 34-63 yrs. (mean=50.8±12). Thirteen patients were in Child’s grade 1 while 122 in grade 2 and 76 in grade 3. 137 patients presented with variceal bleed out of which 97 had a past history of bleed. Tense ascites was found in 60.18% of patients. Alcoholism was found to be the major etiological factor (M=99, F=8) followed by cryptogenic (M=23, F=19). Overall mortality was 11.37% and the major causes included hepatic encephalopathy, GI bleed and infection.

Conclusion: In this region alcoholism constitutes the major etiological factor leading to Cirrhosis of liver, bleeding and encephalopathy being important causes of mortality.

147 Prognostic Significance of Bacterial Infection (Non-Tubercular) in Hepatic Cirrhosis
Saha AK, Kundu AK, Mondal A, Kar S
Burdwan Medical College, Burdwan, West Bengal.

Background: Infection is a well-known complication of cirrhosis and is a major cause of death in these patients. Apart from spontaneous bacterial peritonitis (SBP) other infections also occur in these patients that are often ever looked and adversely affects the prognosis.

Aim: To study the prognostic significance of bacterial infection (non-tubercular) in hepatic cirrhosis.

Methodology: Seventy-four patients of established cirrhosis were studied prospectively for 2 years. Laboratory tests included were CBC, Gram’s stain, cell count, aerobic and anaerobic culture of ascitic fluid, chest X-Ray P.A. and lateral view, blood culture, routine urine examination culture and sensitivity tests, sputum examination, LFT, serum electrolytes, blood urea and creatinine estimation. Patients on presentation were categorised as Child-Pugh Class A, B or C.

Results: Of the total 74 patients, 10 patients were in Class A, 35 patients were in Class B and 29 patients in Class C. Overall 26 patients (34%) has infection. SBP was present in 10 patients (13.5%) community acquired pneumonia in 6 patients (8.1%), skin and soft tissue infection in 4 patients (5.4%), urinary tract infection in 3 patients (4%) and primary bacteremia in 3 patients (4%). Multiple infection was present in 8 patients (10.8%). Incidence of infection was highest in Class C (20%) followed by B (12%) and A Class (2%). Of the 26 patients with infection 7 patients (27%) died as compared to 6 patients (12.5%) in the non-infection group of 48 patients.

Conclusion: Thus infection is an important but unemphasized factor influencing prognosis in patients with cirrhosis or liver. It is more common in decompensated cirrhosis. Clinical suspicion of infection should be high in such patients.

148 Clinico-Aetiological Study of Pyrexia in Patients of Chronic Liver Disease
Gupta A, Chandra M, Chandra A, Mishra R, Tripathi A, Agarwal A
C.S.M. Medical University (Upgraded KGMC), Lucknow

Cirrhosis is the end-stage of many forms of liver injury and is very often complicated by pyrexia. To study the clinico-aetiological aspects of this problem, the present study was undertaken.
A total of 70 patients with chronic liver disease (diagnosed on the basis of clinical presentation, ultrasonographic findings and presence of oesophageal varices on endoscopic examination) presenting with pyrexia were included in this study. The study group included 43 males (61.4%) and 27 females (38.5%). Each patient was subjected to a battery of investigations to ascertain the underlying causes of pyrexia. The aetiological break up of the patients of chronic liver disease revealed 32.8% due to hepatitis B, 12.8% due to hepatitis C and 54% due to other causes inclusive of chronic alcoholic liver disease. In the 70 patients evaluated, the common causes of pyrexia revealed were spontaneous bacterial peritonitis (31.4%), lower respiratory tract infections including pneumonia and empyema (28.5%) and urinary tract infection (UTI) (18.5%) while in 18.5% of cases, no definite cause could be established. Miscellaneous causes (TB peritonitis, Pulmonary TB, HIV) were recorded in 7% of cases. Child-Pugh classification showed a predominance of Class C and Class B in infected cirrhotic patients. In the lower respiratory tract infection group, pneumonia was the commonest cause of pyrexia (85%) and the commonest organism responsible was Klebsiella sp. (70.58%). All cases of UTI were culture positive for growth of E. coli.

In conclusion, it stands that pyrexia is a very common complication in patients of chronic liver disease and patients in Child-Pugh class C and B are more prone to this problem. Gram negative bacilli are the offenders in the majority of these infections. A proper evaluation and early antibiotic treatment may be started on these lines while awaiting culture sensitivity reports and other investigations.

I49 Clinical Analysis of 86 Cases with Amoebic Liver Abscess
Singh BK, Sharma Sushum, Gupta SK, Gupta A, Joshi S, Khorwal SC, Pande DP, Upadhyaya S, Lahoti D
Northern Railway Central Hospital, Bazar Lane, New Delhi - 110 055.

From Jan. 2001 to Jan. 2003, clinical analysis of 86 consecutive cases of amoebic liver abscess was done. Major clinical features were:

<table>
<thead>
<tr>
<th>Number</th>
<th>Percentage (%)</th>
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<tbody>
<tr>
<td>Abdominal pain</td>
<td>74</td>
</tr>
<tr>
<td>Fever with chills/ rigor</td>
<td>74</td>
</tr>
<tr>
<td>H/O alcohol intake</td>
<td>76</td>
</tr>
<tr>
<td>Tender hepatomegaly</td>
<td>72</td>
</tr>
<tr>
<td>Leucocytosis</td>
<td>60</td>
</tr>
<tr>
<td>Male/Female</td>
<td>76/8</td>
</tr>
<tr>
<td>Right lobe</td>
<td>46</td>
</tr>
<tr>
<td>Left lobe</td>
<td>14</td>
</tr>
<tr>
<td>Both lobes</td>
<td>26</td>
</tr>
<tr>
<td>Multiple</td>
<td>38</td>
</tr>
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</table>

Size of abscess was > 5 cms in 40 (46.5%), and < 5cms in 46 cases (53.5%), (largest 15 x 10 cms). All patients were treated with metronidazole and ampicillin. In 10 cases ultrasound guided aspiration was done. Aspiration was mainly required for left lobe lesions and size more than 5 cms. Three cases of rupture were found (on admission). Two right lobe abscesses ruptured in pleural cavity (Rt.) and one left lobe abscess ruptured in peritoneal cavity and patient died of sepsis.

Conclusion: We found a very strong correlation between amoebic liver abscess and significant alcohol intake in our male patients. To the best of our knowledge this is not reported earlier. Medical management alone was excellent for smaller (< 5 cms.) abscesses. Left lobe abscesses esp. larger ones (> 5 cms) required aspiration.

I50 Prevalence of Wilson’s Disease in The Family
Ramaseubramanian R, Venkateswaran AR, Ramani R, Dinakaran N, Ramathilakam B.
Department of Medical Gastroenterology, Government General Hospital and Madras Medical College, Chennai - 600 003, Tamil Nadu.

Aim: To study the prevalence of Wilson’s Disease in the family.

Background: Gastroenterologists must remember the diagnosis of Wilson’s disease particularly when siblings were affected with liver disease. To miss the diagnosis of a treatable but otherwise fatal disease is unforgivable.

Material and Methods: Over a period of the last 15 years, 85 cases of Wilson’s disease were analyzed; based on clinical presentation, biochemical analysis for deranged liver function test, copper metabolism, slit lamp examination for KF ring and therapeutic trial of D-Penicillamine.

Consanguinity in the parents, clinical stigmata of liver disease in the siblings was analyzed. Suspected siblings were screened with preliminary tests for Wilson’s disease.

Results: Out of 85 patients 24 (28%) were males, 61 (72%) were females. Age ranged from 10 years to 36 years at the time of presentation. Primary hepatic manifestation in 50 (59%) and associated neuropsychiatric, hemolytic, renal and osseous manifestations in 35 (41%). Subjective clinical stigmata of CLD were positive in 17 (20%). Consanguinity was present in 21 (24%) parents. Wilson’s disease was documented in siblings - 5 (6%), at same sittings and in 3 (3%) months / years later. None were detected in the parents. First siblings were invariably spared.

Conclusion: Wilson’s disease is a rare but interesting genetic disorder. It can present in more than 10% of siblings at the same age group. Younger the onset the severe will be the course. It must therefore be frequently considered although it is infrequently found.

I51 Serum Alkaline Phosphatase - As a Single Diagnostic Test in Liver Disease - A Meta-Analysis
Ramaseubhaman R, Venkateswaran AR, Premkumar K, Dinakaran N, Jayalakshmi J, Ramani R, Ramathilakam B.
Department of Medical Gastroenterology, C.R.C and Liver Clinic, Madras Medical College and Govt. General Hospital, Chennai - 400 003.

Aim: Analysis of serum alkaline phosphatase as a single biochemical test in clinical practice among liver disease.

Background: Clinical pathology, laboratory place a major role in the management of patients with liver disease. A broad array of biochemical tests are used to provide an indirect evidence hepatobiliary disorders. We have analysed the value of SAP as single biochemical marker in disease.

Material and Methods: Duration of study - 30 months; period Jan. 2000 to June 2002; study group - 565 (males 414 (73%) females (121 (27%) age group - 12 to 81 yrs. Patients clinically diagnosed as liver disease were subjected for routine biochemical investigation. These patients were examined clinically with a history of drug injection, ethanol consumption, food toxins, abdomen, viral markers, liver biopsy, HIV study were done in many patients.

Result: Value of SAP were grouped: (Normal values 3 - 13 KA units)
Mild - 1.5 to 2 fold ↑, Moderate - 2 to 5 fold ↑, Severe - >5 fold ↑
Group I - Parenchymal liver disease - 494, Group II - Obstructive Jaundice - 71

Conclusion: Isolated elevation of SAP will be an early marker for disease process in toxic hepatic granulomatous hepatitis and at times even secondary metastasis. In a case of obstructive jaundice early rise
Obstruction - 49
Malignant - 5
Unknown - 93
Non-viral infective - 40
Toxic hepatitis - 33
ALD-84

DISEASE

MILD MODERATE SEVERE

Viral hepatitis - 205 169 24 8 4
ALD-84 71 8 3 2
Neoplasms - 39 7 15 8 9
Toxic hepatitis - 33 11 15 5 2
Non-viral infective - 40 30 3 2 5
Unknown - 93 59 20 11 3

Group II

DISEASE SITE NORMAL MILD MODERATE SEVERE
Benign obstruction - 22 Proximal - 7 2 3 2 -
Distal - 15 8 5 1 1
Malignant obstruction - 49 Proximal - 19 4 6 6 3
Distal - 30 4 15 6 5

of SAP may be an early indicator of major obstruction, irrespective of the etiology.

152 Serum Transference Estimation in Liver Disease - A Meta-Analysis
Venkatesswaran AR, Ramasubramanian R, Jayalakshmi J, Ramadhilakam B, Dinakaran N
Department of Medical Gastroenterology, Government General Hospital and Madras Medical College, Chennai - 600 003, Tamil Nadu.

Aim: To study the value of serum transaminases AST (SGOT), ALT (SGPT) as a marker of liver disease.

Material and Methods: A retrospective analysis of 650 patients with jaundice in both sexes and age ranging from 12 years to 81 years was done. These patients were subjected to complete clinical examination, biochemical analysis for liver disease, viral markers, and ultrasonographic study of the hepatobiliary system. Markers of autoimmune disease, urinary copper estimation and liver biopsy were done in few patients. Duration of the study was 18 months.

Results: Total number of patients - 650. Viral hepatitis (A-E) 310(47%), ethanol induced liver disease 114 (18%), non-viral infectious hepatitis 56 (9%), toxic hepatitis 24(4%), Wilson's disease 18(3%), autoimmune hepatitis 5(0.7%), obstructive jaundice 64 (10%), combined lesions 15(2%), and undetected etiology 44 (6.7%). Highest elevation of transaminases AST and ALT > 20 fold of normal values in 45 / 310 (1.5%). 24 / 56 (43%) of non-viral infectious hepatitis had > 20 fold elevation. Moderate elevation of transaminases (10 - 20 fold rise) is seen in ethanol induced liver disease, 52 / 114 (46%), toxic hepatitis 10 / 24 (41%), Wilson's disease 4 / 18 (22%), autoimmune hepatitis 2 / 5 (40%), obstructive jaundice 26 / 64 (46%). Transient mild elevation is seen in 20 / 64 (31%) patients with obstructive jaundice. Normal to mild elevation < 5 fold in 298 / 650 cases (45%) of various etiologies. Ratio of AST / ALT > 2 was seen in 60 / 114 (54%) ethanol induced liver disease, 69 / 320 (22%) of viral hepatitis, 23 / 56 (41%) non viral etiology, AST / ALT < 1 seen in 95 / 310 (30%) of viral hepatitis, 15 / 114 (16%) of ethanol induced liver disease, 5 / 56 (9%) of non viral hepatitis, 2 / 24 (8%) of toxic hepatitis. Isolated multifold AST elevation was a single indicator in 10 / 114 (9%) in ethanol induced liver disease, 8 / 310 (3%) in viral hepatitis. There was poor correlation between serum bilirubin and transaminase activity.

Conclusion: Serum transaminases are very useful indicators of acute and chronic liver disease. It is a useful prognostic indicator during hepatic injury phase. Active or advanced liver disease is unlikely with normal levels of transaminases. Transaminases level can provide quantitative information about the severity of liver disease, but they do not offer any clue towards the etiology.

153 Spectrum of Liver Disease in Human Immunodeficiency Virus Infection
Ramasubramanian R**, Dinakaran N***, Aravind A***, Venkateswaran AR***, Padma Priya C,* Jayalakshmi J**
**Tuberculosis Research Centre, ICMR, ***CRC and Liver Clinic, Madras Medical College and Research Institute, Chennai, ***,Department of Medical Gastroenterology, Government General Hospital and Madras Medical College, Chennai.

Aim: To study the natural course of liver disease in HIV infected individuals.

Background: Hepatobiliary disorders are among the most frequent complaints in patients with HIV disease. Advances in anti retroviral therapy are changing the nature of HIV disease. The liver being the major part of reticuloendothelial system is a potential site of removal of HIV infected cells, a site of HIV replication and target organ for many opportunistic infections. This study focuses on the natural course and behavioral pattern of liver disease associated with HIV infection.

Material and Methods: Study period - 30 months from January 2000 - June 2002. Study group - 28 patients (males - 22, and females - 6). Age group - 21 years to 62 years. HIV positive patients with various liver diseases who were referred to the Medical Gastroenterology Department were subjected to clinical examination, basic haematological workup, liver function tests, viral marker studies and ultrasonogram of the abdomen. Liver biopsy was done in a few patients as was needed. All these patients were followed up for a period of 6 weeks to 6 months.

Results: Total number - 28, (a) Acute hepatitis B - 4, (b) Secondaries liver - 4, (c) Alcoholic liver disease - 3, (d) Liver abscess - 3, (e) CLD with SBP - 3, (f) Hepatic granuloma - 3, (g) Enteric hepatitis - 2, (h) Acalculus cholecystitis - 2, (i) Hepatocellular carcinoma - 2, (j) Leptospirosis - 1, (k) Chronic hepatitis C - 1.

Conclusions: 1. HIV infection has not affected the clinical course of the wide variety of liver diseases which are commonly associated. 2. Non-malignant liver disease responded adequately to conservative therapy. 3. Malignant disorders have a progressive course.

154 Prospective Study of Prevalence of Hepatitis B in Health Care Workers
Sahu Arpana, Jain RK, Asthana BS
Gastroenterology Division, Dept. of Medicine, Gandhi Medical College, Bhopal.

Hepatitis B is one of the most prevalent infectious disease in the world. Health care workers (HCW) are frequently exposed to the dangers of infectious agent in the course of their duties through occupational exposure to blood and blood contaminated objects. Infected person is asymptomatic till disease advance to its terminal stage. Limited information is available on incidence and prevalence of hepatitis B virus (HBV) in HCW in India specially in Central India. Pilot study was done in 95 health care worker of Hamidia Hospital randomised in four groups : Laboratory technician, Nurses, sanitary staff and compared with general population i.e. voluntary blood donors. HBsAg was tested by ELISA method, out of 95 cases (32 male, 63 female). Five were positive (5.26%) as compare to control group of voluntary blood donors (275/11000) in last one years (2.5%). Prevalence among various groups were 0%, 5.21%, 9.67% in Lab. technician, Nurses and sanitary staff respectively. Out of 5 positive cases 4 had history of needle prick and prevalence is directly proportional to duration of exposure. This small study is suggestive of high risk of HCW and strong need of immunisation. Large scale study is going on and result are awaited.