HEPATOLOGY

Faculty

Professor and Head	Y.K. Chawla	MD, DM, FAMS, FACG
Professors	R.K. Dhiman	MD, DM, FAMS, FACG
	Virendra Singh	MD, DM, FASGE
Associate Professor	Ajay Duseja	MD, DM, MNAMS, FACG

Prof. Y. Chawla was invited to chair a session at the 2nd Asia-Pacific Primary Liver Cancer expert meeting held at Osaka, Japan from July 1-3, 2011. He was an invited faculty at the Mid-Term ISG and World Digestive Health Day at Bhubaneshwar, Odisha from May 28-29, 2011. He was awarded the "Blumberg Oration" by Kalinga Gastroenterology Foundation and delivered lecture on "Hepatitis B Eradication" at SCB Medical College, Cuttack on July 28, 2011. He was an invited speaker at the "Asian Pacific Digestive week 2011" held at Singapore from October 1-4, 2011 for a symposium on 'Hepatocellular carcinoma; changing epidemiology in Asia; Human genetic polymorphisms on risk of HCC". He was invited as a faculty to give a talk on "Future of Hepatology in India" Mid-Term INASL Meeting and as a speaker on "ACLF; Management Options" at the Liver Session of the Indian Society of Transplantation 2011, New Delhi from October 8-9, 2011. He was invited as a faculty in the ISGCON 2011 held at Coimbatore, Tamilnadu from November 19-22, 2011. He was invited to deliver L.K. Bhutani Oration on "Hepatocellular Carcinoma; from Genetics to Therapeutics" at All India Institute of Medical Sciences, New Delhi on November 28, 2011. He was invited as a faculty at the Asian Pacific Association for the study of liver at Jeju Island, Korea on the theme "Hepatocellular Carcinoma; from basics to care" on December 1-3, 2011. He was invited as a speaker on "Molecular targeted therapy of HCC" at the Myanmar Gastroenterology and Liver Society Meeting at Myanmar, Burma from January 28-29, 2012. He was a Guest Speaker at the Annual Academic Sessions of the Sri Lankan Society of Gastroenterology at Colombo, Sri Lanka on the topics of "Non-cirrhotic portal hypertension" and "Current management of portal vein thrombosis" from February 10-11, 2012. He was an invited faculty at the 22nd Conference of the Asian Pacific Association for the Study of the Liver – 2012 held at Taipei, Taiwan from February 16-19, 2012. He was invited as a faculty at the 20th Annual INASL Conference at Guwahati in March 2012 and also as a Chairperson for DILI Symposium and IDILI Network on March 4, 2012.

Dr Dhiman is an Editor-in-Chief of Journal of Clinical and Experimental Hepatology, an International peer reviewed Journal. He is a member of the Executive Committee of prestigious International body – International Society of Hepatic Encephalopathy and Nitrogen Metabolism

(ISHEN). He gave oral presentation of the study entitled "First Demonstration of Altered Expression of Genes Coding for Key CNS Proteins Involved in Neuronal Excitability and Brain Edema in Patients with Acute Liver Failure" at the 62nd Annual Meeting of American Association for the Study of Liver Diseases (AASLD) in San Francisco, California, November 4-8, 2011. Dr Dhiman moderated a session on "Management of chronic hepatitis C - Special groups" and was a panelist on "Acute/chronic hepatitis C' at the International Liver Symposium held at Medanta-The Medicity**,** Gurgaon on August 26-28, 2011. He chaired a session on 'EUS for bingers' and 'Bile Duct Injuries and Benign Biliary strictures' at the AIIMS-PGI-SGPGI Meeting on Evidence-Based Practice of GI Endoscopy held at Sanjay Gandhi PGIMS, Lucknow on August 7-8, 2011. He was invited as a speaker on "The management of acute viral hepatitis" at the 'Gastrocon - 2011', Bhatinda on August 28, 2012. He was invited as a faculty to give a talk on "Anti-tubercular Drugs and Liver" and chaired a session on 'Nonalcoholic fatty liver disease' at the 'Hepatology Live -2011', UP Indian Society of Gastroenterology on September 11, 2011. He was invited as a faculty to give a talk on ' What a clinician expect from a pathologist in case of NCPF and EHPVO' at the 'CME Liver Pathology 2011', held at the Department of Pathology, PGIMER Chandigarh on October 2, 2011. He was invited as a faculty to give a talk on ' Minimal Hepatic Encephalopathy: Hype or reality!' and chaired a Group Symposium on "Liver Transplantation" at the Mid-term INASL, Sir Gangaram Hospital New Delhi, October 8 and 9, 2011. He was invited as a faculty to give a talk on "Tuberculosis in chronic liver disease: Problems and solutions" and "Minimal Hepatic Encephalopathy: Should we Investigate and treat?" and chaired a session on "Prognostic markers in cirrhosis" at the Annual Conference of Indian Society of Gastroenterology, Coimbatore on November 19-21, 2011. He was invited as a faculty to give a talk on "Tropical liver diseases" and chaired a session on 'Acute Liver Failure" at the "Master Class in Liver Diseases" held at the Global Hospital, Chennai on December 2-4, 2011. He was invited as a faculty to give a talk on "Current therapy for MHE and its effect on Quality of Life" and to chair a session on "Minimal Hepatic Encephalopathy [MHE] Symposium" at the 20th Annual INASL Conference on March 2-4, 2012. He was invited as a faculty to give a talk on "TB in liver: Manifestations, diagnostic difficulties and management issues", "Pharmacotherapy - Brivanib in HCC, Taribavarin in HCV, and Tenofovir in post-transplant HBV infection", and "HBV genotypes: Are relevant in clinical practice?" at the International Liver Symposium held at Fortis Hospital, Mohali on March 8-10, 2012.

Prof. Virendra Singh attended 12th Annual Congress (Endocon 2011) held in Mumbai from April 21-24, 2011 and chaired a session. He also attended DDW Conference held at Chicago (USA) in May, 2011 and presented papers entitled "Noradrenaline versus Terlipressin in the Treatment of Hepatorenal Syndrome" and "Interlukin-6 and Stem Cell Factor as Prognostic Indicators in Acute Liver Failure". He attended the Annual Conference of Indian Society of Gastroenterology, held at Coimbatore in November, 2011 and delivered a guest lecture on "Management of HBV related cirrhosis. He also attended INASL Conference held at Guwahati and participated in a panel discussion on Hepatoradiology session. He was invited as a faculty to

give a talk on “Acute kidney injury in Cirrhosis: Spectrum and outcome “at the Mid-term INASL, Sir Gangaram Hospital New Delhi, October 8 -9, 2011. He was an invited speaker on “Approach to cholestatic liver diseases” at the 'CME in Liver Pathology 2011', held at the Department of Pathology, PGIMER Chandigarh on October 2, 2011. He was invited as distinguished speaker and delivered guest lecture on “Ascites- causes and management in East” at Asian Pacific Association of Study of Liver Disease on February 18, 2012 held at Taipei,Taiwan. He delivered guest lecture on “Approach to solid and cystic lesions of liver” at Fortis International Liver Summit held at Chandigarh in February, 2012.

Dr Ajay Duseja was a guest speaker on ‘Evaluation and management of NAFLD’ at the Annual Conference of the West Bengal chapter of Indian Society of Gastroenterology (ISG) in April 2011. He was also a guest speaker on ‘Nonalcoholic Fatty Liver Disease’ and ‘Acute on Chronic Liver Failure’ at a conference organised by the Hepatitis Foundation of Tripura at Agartala in April, 2011. He was invited to speak on ‘Approach to a patient with HCV infection’ and ‘Nonalcoholic Fatty Liver Disease’ at the Gastroenterology CME at IGMC Shimla in May, 2011. He also spoke on ‘Spectrum of NAFLD – Is it really a serious disease’ at a CME ‘Hepatology made easy for the Physicians’ at Medanta, Medicity, Gurgaon in July, 2011. He was a guest speaker on ‘Post exposure prophylaxis for HBV and HCV’ at a CME on Viral Hepatitis at Fortis Hospital, Mohali in August, 2011. He chaired a session on “Selection of patients with hepatocellular carcinoma for liver transplantation: morphology, biology or a bit of both” at the International Liver symposium at Medanta, Medicity, Gurgaon in August 2011. He was a guest speaker on ‘Burden of HCV in India’ at the symposium on “Clinical Advances in viral hepatitis at New Delhi on August 6-7, 2011. He was a guest speaker on ‘Acute on Chronic Liver Failure’ at the Annual conference of the HP-API Chapter at Mandi in September, 2011. He was a guest speaker in a debate on ‘Liver biopsy is essential for management of NASH’ at the Mid-term meeting of INASL organised by Sir Ganga Ram Hospital at New Delhi in October, 2011. He was an invited speaker on 'Clinical spectrum of alcoholic and non-alcoholic fatty liver disease’ and ‘Clinician’s expectation in liver biopsy of chronic hepatitis’ at the 'CME in Liver Pathology 2011', held at the Department of Pathology, PGIMER Chandigarh on October 2, 2011. He chaired a session on NAFLD/ NASH at ‘Hot topics in AASLD’ organised by Science First Communications at Hyderabad in December, 2011. He spoke on ‘Post Transplant – NAFLD’ and ‘Epidemiology of NAFLD in Asia’ and Fibroscan Vs Liver Biopsy’ at the Fortis International Liver Summit at Chandigarh in March, 2012.

SERVICE

An outpatient liver clinic is conducted every Monday and Friday. A total No. of 14319 old and 4057 new patients were seen in liver clinic during 2011-2012.

During the year, the investigations performed included:

Name of Test/Procedure	2011-12	2010-11	2009-10
UGI Endoscopies	2057	1797	1570
Lower GI Endoscopies	57	120	30
ERCPs	332	367	377
Ultrasound	2221	2087	3350
Endoscopic Ultrasound (EUS)	20	-	-
Fibroscan	363	-	-
Liver function tests	500	3000	3066
Anti HCV	2800	3322	5010
HBsAg	3000	3143	5000
HBeAg/Anti HBe	220	1599	1000/520
Anti HEV (IgM)	670	436	786
Anti HBc (IgM)	220	97	220
Anti HBc (total)	165	20	88
Anti HBs	150	126	77
Anti HAV (IgM)	412	180	-

These services were rendered to outpatients, patients attending special clinics, emergency and indoor patients.

TRAINING

Residents of Internal Medicine rotated through the department for training imparted through regular sessions of clinical case discussions, topic discussions, hepato-radiology rounds, seminars, liver biopsy rounds and journal clubs. They were also trained to perform bedside procedures like liver biopsy, abdominal paracentesis, etc. Five students passed out with DM (Hepatology) in the year 2011-12. Seven Ph.D students are undergoing training in the Department. Two short term trainees were trained from 17.10.2011 to 16.11.2011 (one month) and the other was from MLN Medical College, Allahabad 7th March, 2012 to 21st March, 2012 (15 days) and Four WHO Fellows Trainees from DPR Korea were trained from 9th November, 2011 to 29th December, 2011 (1½ months).

RESEARCH COMPLETED

ICMR

1. **Increased expression of aquaporin-4 in perivascular astrocytes end-feet contribute to the development of brain edema in acute liver failure**

Dissected samples of cerebral cortex were obtained at autopsy from 8 patients with ALF due to either viral hepatitis or toxic liver injury (mean age 26 years; range 13-46) and from 7 control patients with no evidence of liver or other neurological disorders (mean age 54 years; range 16-78). The expression of the AQP-4 at mRNA level was evaluated by using real time PCR and protein expression was assessed using both immunoblotting (western) techniques as well as immunohistochemistry using commercially-available polyclonal antibodies. AQP-4 mRNA expression was significantly up-regulated by 3.38 folds (P=0.003) but its protein level in total cell lysate from frontal cortex of ALF patients remained unchanged (P=0.3) compared to controls. However, immunhistochemical analysis showed increase in AQP-4 immunoreactivity in the plasma membrane around the perivascular astrocyte end-feet and forming a continuous perivascular sheath in both grey and white matter in ALF patients compared to controls. These findings suggest that over expression of AQP-4 plasma membrane levels in perivascular astrocyte end-feet is likely to contribute in the development of brain edema in ALF.

DEPARTMENTAL

2. Correlation between degree and quality of sleep disturbance and the level of neuropsychiatric impairment in patients of cirrhosis.

Sleep disturbances are common in patients of cirrhosis and has a significant effect on their health related quality of life (HRQOL). Thus far, no study has demonstrated a systematically studied significant correlation between the sleep disturbance observed and the neuropsychiatric impairment status of patients of cirrhosis. Conclusion: Both night time sleep disturbance and excessive daytime somnolence have significant relation with the neuropsychiatric impairment in patients of cirrhosis and are significantly associated with the observed impairment in HRQOL.

3. APACHE II scoring is superior in predicting the in-hospital mortality in patients with acute on chronic liver failure (ACLF).

One-hundred consecutive patients (87 males, median age 49, 25-75 IQR 38-55.7 years) with ACLF were evaluated prospectively. Sensitivity, specificity, positive and negative predictive value and diagnostic accuracy for predicting in-hospital mortality was calculated for acute physiology and chronic health evaluation (APACHE II), sequential organ failure assessment (SOFA), Child Turcotte Pugh (CTP) and model for end stage liver disease (MELD) in all patients and Maddrey's discriminant function (DF) and Glasgow alcoholic hepatitis scores (GAHS) for only patients with alcoholic hepatitis. Majority (n =72) of patients had alcohol related cirrhosis and alcoholic hepatitis (n=50) as the acute insult for ACLF. Fifty three

patients either died or left hospital in very sick state. Overall, APACHE II had a better accuracy [AUROC (.741)] than MELD (.675), SOFA (.656) and CTP (.613) for predicting in-hospital mortality in all patients. Even for patients with alcoholic hepatitis, APACHE II [AUROC (.880)] performed better than DF (.694) and GAHS (.764).

4. Prediction of sustained virological response to combination therapy with pegylated interferon alfa and ribavirin in patients with genotype 3 chronic hepatitis C.

Ninety-seven treatment-naive patients with CHC genotype 3 (mean age 41.46±11.51 years, M:F ratio 79:18), who received a combination of PEG-IFN (α-2a or α-2b) and RBV were retrospectively analyzed (2006-2008) for the early virological response (EVR) at 12 weeks, end of treatment response (ETR), and SVR at 6 months. Eighty-four (86.6%) patients achieved EVR and 81 (83.5%) achieved ETR, while SVR was achieved in 65 (67.0%) patients. Of the 84 patients who achieved EVR, 77 (91.7%) achieved ETR and 61 (72.6%) achieved SVR at 6 months. Age and body mass index (BMI) were found to be important predictors (*P<0.05) of SVR. CHC patients with a history of alcohol intake showed decreased SVR (52%) (*P=0.035) as compared to non-alcoholics (80%).

5. Functional reconstitution of defective myeloid dendritic cells in chronic hepatitis C infection on successful antiviral treatment.

Frequency and functions of monocyte-derived DCs (mo-DCs) were evaluated in CHC (n = 25), before the start of therapy. These patients were then put on treatment with peg-interferon-α plus ribavirin for 24 or 48 weeks, and the mo-DC functions were evaluated after 6 months of completion of treatment again, using multicolour flow cytometry, endocytosis assay, cytokine assay and mixed lymphocyte reaction. Pre-treatment frequency of mo-DCs in CHC at baseline was lower than that in healthy controls, which became close to normal in patients who achieved virological response (SVR+, n = 20) but not in non-responders (SVR-, n = 5). Pre-treatment levels of CD83, CD80 and CD86 on mo-DC in SVR +, but not SVR -, got upregulated after lipopolysaccharide stimulation supporting the hypothesis that DCs play deciding role in response to therapy. Post-treatment allostimulatory and phagocytosing capacity of mo-DCs in SVR+ patients indicated regain in functional capacity in these patients but not in SVR- patients.

6. Hepatic osteodystrophy is common in patients with noncholestatic liver disease.

Patients diagnosed with cirrhosis were prospectively evaluated for bone mineral density (BMD) as measured by dual-energy X-ray absorptiometry at the femoral neck, lumbar spine, and left forearm (distal radius). Correlation of BMD with age, sex, etiology of cirrhosis,

Child's class, serum bilirubin, alkaline phosphatase (ALP), albumin, calcium, phosphate, 25-hydroxyvitamin D (25(OH)D), and parathyroid hormone (PTH) was studied. The study group comprised 115 cirrhotic patients (107 males and 8 females). Etiology of cirrhosis was alcohol in 67 (58.2%) and viral in 48 (41.7%). Hepatitis B was diagnosed in 29 (25.2%) and hepatitis C in 19 (16.5%). Mean age was 49 (± 5.5) years. Prevalence of osteodystrophy was significantly higher in males than in females; 97.1% and 75% respectively (P = .038). Both alcoholic and viral groups had similar baseline characteristics except albumin levels. Child's class was B in 72 patients and C in 43. Low BMD was present in 97% of patients with alcoholic cirrhosis and 93.7% with viral cirrhosis (P > .05). Low BMD was present at the femoral neck in 80.8% of patients, lumbar spine in 77.3%, and forearm in 59.9%. PTH correlated negatively with BMD.

7. Effects of antiviral drugs on Hepatitis B virus (HBV) covalently closed circular DNA (cccDNA) and mutational changes in HBV genome in patients with chronic hepatitis B

Aim of present study was to evaluate the efficacy of antiviral drugs in reducing HBV cccDNA and mutational changes in RT region of its genome. We enrolled 71 chronic hepatitis B patients who had not experienced any antiviral in past, from Liver clinic of department of Hepatology. Subjects were recruited from January 2009 to June 2011. HBV RT sequence analysis was done by using direct bidirectional sequencing of PCR products. HBV genotypes were determined by using multiplex PCR described by Kirschberg et al in 2004. We found genotype D in 90.14% of cases followed by genotype A which was present in 4 (5.63%) cases. Out of 71 patients, we found mutated RT region in 34 patients. The results of sequence analysis of RT region showed H248N mutation as most prevalent, accounted for 47.05% (16/34) cases. Other common mutations included D263E/S, M129L F122L/V/I, S135Y/H, Q149K, L91I, H126R, C256S/G, Y257W, S259T and E271D which were present in 26.47% (9/34), 29.41% (10/34), 20.58% (7/34), 20.58% (7/34), 20.58% (7/34), 17.64% (6/34), 14.74% (5/34), 14.74% (5/34), 11.76% (4/34), 11.76% (4/34) and 11.76% (4/34) respectively. Procedure for quantification of HBV cccDNA has been standardized. In conclusion, present study shows presence of HBV RT amino acid substitutions in treatment-naïve CHB patients which may decrease the susceptibility of available oral antivirals approved for treating CHB patients.

RESEARCH IN PROGRESS

ICMR

1. Alterations in gene expressions coding for key astrocytic and neuronal proteins in patients who have died from acute liver failure or chronic liver failure associated with hepatic encephalopathy.
2. Expression and polymorphism of toll like receptors (TLR) and small intestinal bacterial overgrowth in patients with nonalcoholic fatty liver disease (NAFLD)
3. To study the protective effect of Nrf2 gene against oxidative stress and inflammation in frontal cortex and cerebellum regions of brain and blood in acute hyperammonemic rats.
4. Efficacy of antiviral drugs in reducing hepatitis B virus (HBV) covalently closed circular DNA (cccDNA) and mutational changes in HBV genome in patients with Chronic Hepatitis B.

PHARMACEUTICAL FUNDED

CD Pharma, New Delhi

5. Secondary prophylaxis of hepatic encephalopathy: A double blind, randomized, placebo controlled study with supplementation with a probiotic preparation.

6. Supplementation with a probiotic preparation, VSL#3® as a support pharmaceutical therapy in cirrhotic patients for the treatment of minimal hepatic encephalopathy (MHE). A double-blind, randomized, placebo controlled study.
7. Small Intestine bacterial overgrowth and role of probiotic, VSL#3 in patients with Nonalcoholic Fatty Liver Disease (NAFLD).

BMS

8. HCV-The Indian Face

DEPARTMENTAL

9. Correlation of Transient Elastography and APRI with liver histology in patients with NAFLD and chronic viral hepatitis.
10. Relationship between obstructive sleep apnea and nonalcoholic fatty liver disease.
11. G-CSF in alcoholic hepatitis.
12. Midodrine and clonidine in refractory ascites in cirrhosis.
13. Noradrenaline and terlipressin in hepatorenal syndrome.
14. Contrast-free air cholangiography-assisted unilateral stenting in malignant hilar biliary obstruction.

INDEXED PUBLICATIONS

1. Acharya SK, Sreenivas V, Gupta SD, Kumar Shakti, Chawla YK, Tandon A, et al. Treatment of Chronic Hepatitis due to Hepatitis C virus (CH-C) in India: A Randomized Controlled Trial Comparing Daily interferon –alfa-2b and Ribavirin with Daily Interferon-alfa-2b and Glycyrrhizin-A Multicenter Study. J Clin Exp Hepatol 2012; 2: 10-8.
2. Choudhary NS, Gupta S, Chawla YK, Duseja A, Dhiman RK, Das A Azathioprine Induced Liver Injury: A case report Dig Dis Sci 2012 Apr 22. [Epub ahead of print]
3. Rana D, Chawla YK, Duseja A, Dhiman R, Arora SK. Functional reconstitution of defective myeloid dendritic cells in chronic hepatitis C infection on successful antiviral treatment. Liver Int 2012 Feb 6. [Epub ahead of print]
4. Singh MP, Majumdar M, Sharma A, Chawla Y, Ratho RK. Prolonged jaundice attributed to super infection of hepatitis E virus in a case of resolving leptopirosis Indian J Med Microbiol 2012;30:103-6.
5. Singh V, Dhungana SP, Singh B, Vijayverghia R, Nain CK, Sharma N, Bhalla A,Gupta PK. Midodrine in patients with cirrhosis and refractory or recurrent ascites : a randomized pilot study. J Hepatol 2012;56:348-54
6. Anand MS, Bahl A, Bodh V, Dhiman RK. Recent Onset Dyspnea in a Patient with Cirrhosis of Liver. J Clin Exp Hepatol 2011; 1: 212.
7. Chawla YK, Kashinath RC, Duseja A, Dhiman RK. Predicting Mortality Across a Broad Spectrum of Liver Disease—An Assessment of Model for End-Stage Liver Disease (MELD), Child–Turcotte–Pugh (CTP), and Creatinine-Modified CTP Scores. J Clin Exp Hepatol 2011; 1:161–8.
8. Choudhary NS, Tomar M, Chawla YK, Bhadada SK, Khandelwal N, Dhiman RK, Duseja A, Bhansali A. Hepatic Osteodystrophy Is Common in Patients with Noncholestatic Liver Dig Dis Sci 2011;56:3323-7.
9. Dhiman RK, Kalra N, Vasishta RK, Singh R, Chawla YK. Biliary Obstruction and a Mass Lesion in the Liver. J Clin Exp Hepatol 2011; 1: 121.
10. Dhiman RK. Journal of Clinical and Experimental Hepatology (JCEH): Well Begun is Half-done. J Clin Exp Hepatol 2012; 2:1.
11. Dhiman RK. Spectrum of Idiopathic Noncirrhotic Portal Hypertension. J Clin Exp Hepatol 2011; 1: 55–6.
12. Dhiman RK. The Green Tea Polyphenol, Epigallocatechin-3-Gallate (EGCG)—One Step Forward in Antiviral Therapy Against Hepatitis C Virus. J Clin Exp Hepatol 2011; 1:159–60.
13. Dhiman RK. The Homeland for Hepatobiliary Research and Education. J Clin Exp Hepatol 2011; 1:1.

14. Dogra G, Chakravarti A, Kar P, Chawla YK. Polymorphism of tumor necrosis factor-α and interleukin-10 gene promoter region in chronic hepatitis C virus patients and their effect on pegylated interferon-α therapy response. Hum Immunol 2011; 72:935-9.
15. Garg A, Reddy C, Duseja A, Chawla YK, Dhiman RK. Association between Celiac Disease and Chronic Hepatitis C Virus Infection. J Clin Exp Hepatol 2011; 1: 41–4.
16. Kumar S, Pujhari SK, Chawla YK, Chakorborty A, Ratho RK. Molecular detection and sequence analysis of hepatitis E virus in patients with viral hepatitis from North India. Diagn Microbiol Infect Dis. 2011;71:110-7.
17. Rajekar Harshal,Vasishta RK, Chawla YK, Dhiman RK. Noncirrhotic Portal Hypertension. J Clin Exp Hepatol 2011; 1: 94-108
18. Rana D, Menachery J, Chawla Y, Duseja A, Dhiman R, Arora S. HBV specific T-cell responses in hepatitis B. Tropical Gastroenterology 2011; 32: 273-8
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22. Taneja S, Dhiman RK. Non-cirrhotic Portal Fibrosis and Gamma-Gandy Bodies. J Clin Exp Hepatol 2011; 1:48.
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29. Duseja A. Hepatology Elsewhere. J Clin Exp Hepatol 2011; 1:49-52.

30. Duseja A. Hepatology Elsewhere. J Clin Exp Hepatol 2011; 1:122-4.
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32. Duseja A. It is Patatin - like Phospholipase Domain- Containing 3 gene (PNPLA3) – All the way. J Clin Exp Hepatol 2011; 2: 94-6.
33. Menachery J, Duseja A. Treatment of decompensated alcoholic liver disease. Int J Hepatol. 2011;219238.
34. Choudhary N, Duseja A, Kalra N, Chawla Y. Hepatobiliary and Pancreatic: Intrahepatic biloma after blunt abdominal trauma. J Gastroenterol Hepatol 2011;26:1342.
35. Ghosh S, Duseja A, Dhiman RK, Chawla YK. Tongue hyperpigmentation resulting from peginterferon alfa-2b and ribavirin treatment in a patient with chronic hepatitis C. Dig Dis Sci 2012; 57:820-1.
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Chapter in Book

1. Chawla YK, Taneja Sunil. Non-Alcoholic Fatty Liver Disease API Textbook of Medicine Volume 1, 9th ed. New Delhi : In: Munjal YP, editor- in -chief. Jaypee Brothers Medical Publishers (P) Ltd 2012. p 885-887.
2. Dhiman RK. Hepatobiliary Disorders – Investigations. API Textbook of Medicine Volume 1, 9th ed. New Delhi: Jaypee Brothers Medical Publishers (P) Ltd 2012. p 851-4.

ANNEXURE

Visiting Professors

- NIL -

Part I

AWARDS AND HONOURS

Prof. Y. Chawla was awarded the “Blumberg Oration” by Kalinga Gastroenterology Foundation and delivered lecture on “Hepatitis B Eradication” at SCB Medical College, Cuttack on July 28, 2011. Prof. Y. Chawla was delivered L.K. Bhutani Oration on “Hepatocellular Carcinoma; from

Genetics to Therapeutics" at All India Institute of Medical Sciences, New Delhi on November 28, 2011. Astra Zeneca Oration for 2011 by Indian Society of Gastroenterology.

American Society of Gastrointestinal Endoscopy awarded the Fellowship of ASGE (FASGE) to Dr Virendra Singh for his contribution in the field of Endoscopy. Dr Dhiman is Editor-in-Chief of Journal of Clinical and Experimental Hepatology, an International peer reviewed Journal. Dr Dhiman is also a member of the Executive Committee of prestigious International body – International Society of Hepatic Encephalopathy and Nitrogen Metabolism (ISHEN).

Part II

DEPARTMENTAL HIGHLIGHTS

Dr. Sunil Taneja received 1st prize in the oral presentation at 19th Annual Conference of INASL, held at Chandigarh from March 25-27, 2011. Dr. Kiran K Thumuru received 1st Prize in best paper award at 52nd Annual Conference of Indian Society of Gastroenterology (ISGCON) held at Coimbatore, from November 18-22, 2011 for the research paper entitled "First demonstration of altered expression of genes coding from key CNS proteins involved inneuronal excitability and brain edema in patients with acute liver failure". Mr. Sandeep Kumar Goyal received 2nd Prize in best poster presentation in 20th Annual Conference of INASL, held at Guwahati from March 2-4, 2012 for the research paper entitled "Altered Nrf2 gene expression leads to oxidative stress in acute hyperammonemic rats" Dr. Jayanta Samanta has been awarded special prize in poster presentation in 20th Annual Conference of INASL, held at Guwahati from March 2-4, 2012 for his research paper entitled " Correlation between degree and quality of sleep disturbance and the level of neuropsychiatric impairment in patients of cirrhosis".

Part – III

RESEARCH HIGHLIGHTS

Both night time sleep disturbance and excessive daytime somnolence have significant relation with the neuropsychiatric impairment in patients of cirrhosis. APACHE II scoring is superior in predicting the in-hospital mortality in patients with acute on chronic liver failure (ACLF). Combination therapy with PEG-IFN-α and RBV demonstrated good response in CHC genotype 3 infection. Age, BMI, and alcohol consumption play an important role in determining treatment outcome. Dendritic cells in CHC patients exhibiting mature and functional phenotype prior to therapy achieve sustained virological response suggesting that functional modulation of defective DCs is directly associated with successful response to therapy. Hepatic osteodystrophy is common in patients with noncholestatic liver disease. Over expression of AQP-4 plasma

membrane levels in perivascular astrocyte end-feet is likely to contribute in the development of brain edema in patients with acute liver failure.