

2014-15 (April 2014-March 2015)**HEPATOLOGY****Faculty**

Professor and Head	Y.K. Chawla	MD, DM, FAMS, FACG
	R.K. Dhiman	MD, DM, FAMS, FACG FRCP Edin, FRCP London
Professors	Virendra Singh	MD, DM, FASGE
	Ajay Duseja	MD, DM, MNAMS, FACG
Additional Professor	Sunil Taneja	MD, DM (Join on 18.11.2013)
Assistant Professor		

Dr. Y. K. Chawla chaired a session on “Pathophysiology of Chronic Pancreatitis” at the 5th International Conference of the Asian Oceanic Pancreas Association in April 2014 at Gurgaon. He spoke on “Advances in Hepatology - What should a clinician know” and “Immune paralysis in liver cirrhosis: clinical relevance” at a conference ‘Advances in Hepatology’ organised by the South Asian Association for the Study of Liver (SAASL) at New Delhi on September 6-7, 2014. He delivered lecture on “Alcohol and Gastrointestinal Hepatic Disorders” in 54th Annual Conference of the National Academy of Medical Sciences held at All India Institute of Medical Sciences, Rishikesh in October, 2014. He chaired the ‘Dr. Pran Nath Chhuttani Oration’ on “Developing in house reagents for the diagnosis of Chikungunia and Dengue” held at AllMS, Rishikesh in October, 2014. He was a panelist in the session on “TB in live liver donor and recipient: peri-op management” at the 25th Annual Conference of Indian Society of Organ Transplantation” held at Aurangabad in October, 2014. He delivered three lectures on “New liver assist devices”, “Cirrhosis : Genotype 1 and 3” and “Recent advances in management of Budd-Chiari Syndrome” at the 55th Annual Conference of the Indian Society of Gastroenterology at Mumbai in December, 2014. He delivered a lecture on “Progress in Donation after Cardiac Death in the West” in 1st Consensus Meeting held at Delhi in January, 2015. He delivered a talk on “Hepatitis C – suspect, detect and treat” at the Annual Conference of the Association of Physicians of India held at Gurgaon in February, 2015. He chaired free paper session on “Liver Cirrhosis” and also delivered lecture on “Hepatorenal syndrome” in a session on “Complications of cirrhosis” at the 24th Annual Conference of Asian Pacific Association for the Study of Liver held at Istanbul – Turkey from March 12-15, 2015. He was invited as a chairman in common plenary session for “Regional Organ and Tissue Transplant Organizations” organised on National Organ Donation day (March 27, 2015) at New Delhi.

Dr RK Dhiman is Governor of American College of Gastroenterology (ACG) for India for the 4th year in a row and participated in Governors meeting at the Annual Meeting of ACG held in Philadelphia, Pennsylvania, USA from October 17 to 22, 2014. He is also a member of International Relations committee member of ACG and participated in the meeting on October 20, 2014. He also presented his research work entitled "Reversal of low-grade cerebral edema after lactulose/rifaximin therapy in patients with cirrhosis who have minimal hepatic encephalopathy" on October 20, 2014. He was also Course Director for ACG Postgraduate Course for India at its Annual Meeting of ACG held at Philadelphia in October 2014.

Dr Dhiman has been elected as President for the years 2014-16 of the prestigious International Society for Hepatic Encephalopathy and Nitrogen Metabolism (ISHEN). Dr Dhiman was also invited to be a Guest faculty at the 16th ISHEN, held on September 10-13, 2014 in London. The Theme of the conference was "Hepatic encephalopathy"; he chaired a session on "Where are we going? ii. Emerging therapies".

Dr Dhiman attended 65th Annual Meeting of American Association for the Study of Liver Diseases (AASLD) in Boston, Massachusetts, November 7 - 11, 2014 and presented his research work entitled "Efficacy and safety of a probiotic preparation in the secondary prophylaxis of hepatic encephalopathy in cirrhotic patients: Final results of a double blind, randomized, placebo controlled study" as Oral Presentation and other 2 papers entitled "Disease Burden of Chronic Hepatitis C Virus (HCV) Infection in India" and "Chronic liver failure sequential organ failure assessment (CLIF-SOFA) is better than the Asia-Pacific Association for the Study of Liver (APASL) criteria for defining Acute-on-Chronic Liver Failure (ACLF) and predicting outcome" as Poster presentation.

Dr Dhiman is Editor-in-Chief of *Journal of Clinical and Experimental Hepatology (JCEH)*, which is an international peer reviewed official Journal of Indian National Association for the Study of Liver (INASL). The Journal has been indexed in "PubMed Central" since its inception in 2011.

He was an invited faculty to "National conference on Liver Disease: Hepatobiliary diseases" held in Chennai on July 12, 2014; he delivered a talk on "Covert and Overt Hepatic Encephalopathy" and moderated a session on "Corticosteroids in Liver Disease". Dr Dhiman was invited to talk on "Non-cirrhotic portal fibrosis (NCPF): does it still exist?" at "The South Asian Association for Study of the Liver (SAASL)" organized at New Delhi. He was a panelist on "Peri-transplant HCV therapy – new anti-virals, new paradigms" at the meeting of Indian Society of Organ Transplantation organised by Army Hospital (R&R), New Delhi on 1 November 2014. Dr Dhiman was an invited faculty to "Decision

Making in Gastroenterology" organised by Army Hospital (R&R), New Delhi on November 15-16, 2014; he delivered a talk on "Non-transplant options for management of Hepatocellular carcinoma". He was an invited faculty to Kolkata Liver Meeting, held on December 12 - 13, 2014 in Kolkata and organised by Liver Foundation, West Bengal; he delivered a talk on "Portal vein thrombosis (PVT) in adults : East versus West".

Dr Dhiman was involved in organising "Poster making competition" and "Public forum" on organ donation for promoting organ donation in India on world organ donation day, August 6, 2014. His Excellency Governor of Haryana Professor Kaptan Singh Solanki gave away the awards to the winners.

Dr Virendra Singh attended 65th Annual Meeting of American Association for the Study of Liver Diseases (AASLD) in Boston, Massachusetts, November 7 - 11, 2014 and presented his research work entitled "Relative Adrenal Insufficiency in Cirrhotic Patients with Ascites" and "Cyanoacrylate Therapy for the Treatment of Gastric Varices: A New Method". He spoke on "Revised definition of acute kidney injury in cirrhosis: Old wine in new bottle?" at a conference 'Advances in Hepatology' organised by the South Asian Association for the Study of Liver (SAASL) organized by the Department of Gastroenterology & Hepatology, Sir Ganga Ram Hospital, New Delhi under the aegis of "Delhi Liver Foundation" on September 6-7, 2014. He delivered a guest lecture on "Managing Complications in Cirrhotic Patients: From Ascites to Hepatorenal Syndrome" at the annual conference of the Indian Society of Gastroenterology held at Mumbai in December 2014. He delivered a guest lecture on "Controversies and Consensus in Endoscopic Management of Hilar Blocks" at 'GASTROCON – 2014' organised by the department of Gastroenterology, MLN Medical College, Allahabad on September 27-28, 2014. He participated as a faculty member in the Indian Gastro Summit (IGS) & AIGE Councilor Meeting held at Goa, on June 14, 2014. He delivered a guest lecture on "Regenerative Therapy for ACLF" at Mid-term ISGCON held at Delhi in March 2015. He spoke on "Role of Vasopressors in Ascites" at the 1st International Conference on Ascites organised under the aegis of "Society for the Study of Liver Diseases" on February 21-22, 2015 at PGI, Chandigarh.

Dr Ajay Duseja was a speaker on 'Management of Chronic Hepatitis B infection' at the Biennial conference of the Gastrointestinal Infection Society of India held at Govt Medical College and Hospital, Chandigarh on April 11-12, 2014. He chaired a session on 'Intracranial Pressure Monitoring' at the 3rd Transplant Anaesthesia and Critical Care Symposium (TRANCRIT)-2014, organised at Institute of Liver and Biliary Sciences, New Delhi on May 17, 2014. He was one of the experts in the 'ICMR - Expert Group meeting on Viral Hepatitis' organised by ICMR, New Delhi on June 13, 2014. He was a guest speaker on 'Risk Factors and

Pathogenesis of NAFLD' at GASTROCON 2014, a National Task Force Meeting organised by Elsevier Health Sciences in Gurgaon on August 31, 2014. He was a guest speaker on 'Acute on Chronic Liver Failure – Is there a consensus now?' at a conference 'Advances in Hepatology' organised by the South Asian Association for the Study of Liver (SAASL) at New Delhi on September 6–7, 2014. He was also a guest speaker on 'Loco-regional therapy, surgical resection or liver transplantation for management of hepatocellular carcinoma' at 'GASTROCON – 2014' organised by the department of Gastroenterology, MLN Medical College, Allahabad on September 27 and 28, 2014. He was an invited faculty at the 'Gastroenterology Young Masters Programme' organised by Indian Society of Gastroenterology at AIIMS, New Delhi on November 7-9, 2014. He spoke on 'Hepatic Lipotoxicity' at the annual conference of Endocrine Society of India, organised by the department of endocrinology at PGIMER, Chandigarh on November 14-16, 2014. He was a guest speaker on 'Autoimmune Hepatitis' at a conference on 'Decision making in Gastroenterology' organised by the Department of Gastroenterology, Army Hospital (R & R), New Delhi on November 15-16, 2014. He was a guest speaker on 'Hepatic Steatosis and Portal Hypertension' at the 5th Liver Kolkata Meeting organised by Liver Foundation, West Bengal on December 12-13, 2014. He was a guest speaker on 'Hepatic steatosis and development of diabetes mellitus' and 'HEV induced ACLF – what should we do?' at the annual conference of the Indian Society of Gastroenterology (ISG) along with mid-term conference of the Indian National Association for the study of Liver (INASL) organised at Mumbai from December 19-23, 2014. He was one of the experts at the 'Drugs for neglected diseases initiative (DNDi) - AllMS Brainstorming meeting on innovative strategy for Hepatitis C Drug development' organised at New Delhi on January 30, 2015. He was a guest speaker on, 'Nonalcoholic fatty Liver Disease' at the North-East Gastro meet organised by the Guwahati Medical College on January 31 and February 1, 2015 at Guwahati. He was a guest speaker on 'Case based approach in NAFLD' at the annual conference of the association of physicians of India – APICON 2015 on February 20, 2015 at Gurgaon.

Dr Sunil Taneja chaired a session on 'Emergencies in post-liver transplant scenario' at a conference 'Advances in Hepatology' organised by the South Asian Association for the Study of Liver (SAASL) at New Delhi on September 6 – 7, 2014. He co-organized the International Conference on Ascites in February, 2015 at PGI, Chandigarh.

SERVICE

An outpatient liver clinic is conducted every Monday and Friday. A total No. of 26841 old and 18447 new patients were seen in liver clinic during 2014-2015. During the year, the investigations performed included:

Name of Test/Procedure	2014-15	2013-14	2012-13
UGI Endoscopies	2685	2725	2667
Lower GI Endoscopies	110	95	74
ERCs	363	335	339
Ultrasound	1903	1985	2332
Endoscopic Ultrasound (EUS)	73	18	25
Fibroscan	5621	3679	3181
Liver function tests	-	-	653
Anti HCV	4834	4126	3399
HBsAg	5151	4650	3967
HBeAg/Anti HBe	3257	2500	3512
Anti HEV (IgM)	1016	780	768
Anti HBc (IgM)	439	350	256
Anti HBc (total)	1154	515	366
Anti HBs	516	200	200
Anti HAV (IgM)	1011	760	805

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

TRAINING

Seven residents were pursuing DM (Hepatology) and five PhD fellows were pursuing PhD training in the department during the year.

MD residents from the department 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. DM residents from the department of Gastroenterology also rotated through the department for training imparted through regular sessions of bedside clinical case discussions, liver transplant forums, hepato-radiology rounds, seminars, liver biopsy rounds, journal clubs and through specialised procedures like liver transplantation, Fibroscan, TJLBs, TIPS/DIPS, TACE, and RFA etc done for the patients of the department.

RESEARCH COMPLETED

1. A study of advanced magnetic resonance imaging (MRI) and in vivo ¹H magnetic resonance spectroscopy (MRS) in patients with different grades of acute-on-chronic liver failure

This study conclusively demonstrated that cerebral edema increases with severity of ACLF and is predominantly due to extracellular brain water

increase. Correlation between mean diffusivity values and IL-6 levels suggested pathogenic role of inflammation. MELD score and cerebral edema had prognostic significance in ACLF patients.

2. Simple organ failure count versus CANONIC grading system for predicting mortality in acute-on-chronic liver failure (ACLF).

Simple organ failure count was found to be a simpler and better method than the CANONIC grading system for predicting the in-hospital mortality in patients with ACLF defined as per the APASL criteria.

3. Utility of Vitamin D treatment in patients with Nonalcoholic Fatty Liver Disease

In comparison to patients with NAFLD managed only with lifestyle modifications, patients given single intramuscular injection of vitamin D (6 lac units) in addition to lifestyle modifications had significant improvement in serum levels of AST and ALT and significant increase in the mean serum levels of adiponectin as assessed after 6 months of treatment.

Research in progress

ICMR

1. To study the protective effect of Nrf2-ARE pathway against oxidative stress and inflammation in frontal cortex and cerebellum regions of brain in acute and chronic hyperammonemic rats
2. Apolipoprotein V3 (APO C3) and Patatin like Phospholipase Domain Containing Protein 3 (PNPLA3) Gene polymorphism and expression in patients with Non-alcoholic fatty liver disease (NAFLD).

Other Extramural projects

Gilead/Klinera

3. GS-US-334-0116: "A Phase 3b, Multi-centre, Randomized, open label, Study to Evaluate the Safety and Efficacy of Sofosbuvir plus Ribavirin in treatment-naïve adults with chronic Genotype 1 or 3 Hepatitis C Virus Infection."
4. GS-US-334-0108: "A Phase 3, Randomized, Double-Blind Study to Evaluate the Safety and Efficacy of Tenofovir Alafenamide (TAF) 25 mg QD versus

Tenofovir Disoproxil Fumarate (TDF) 300 mg QD for the Treatment of HBeAg Negative, Chronic Hepatitis B.”

5. GS-US-334-0110: “A Phase 3, Randomized, Double-Blind Study to Evaluate the Safety and Efficacy of Tenofovir Alafenamide (TAF) 25 mg QD versus Tenofovir Disoproxil Fumarate (TDF) 300 mg QD for the Treatment of HBeAg Positive, Chronic Hepatitis B.”

Liver foundation, West Bengal

6. Diabetes –Liver disease Embrace – Comprehensive action for metabolic health and wellbeing – integration of a diabetes intervention with a liver health program

Tata memorial Hospital, Mumbai

7. A Case – Control study to investigate risk factors for Liver Cancer – in collaboration

DEPARTMENTAL

8. Study of incidence and risk factors for HCV and HBV seroconversion in end stage renal failure patients on maintenance hemodialysis.
9. Role of neuroinflammation in patients with acute liver failure and in patients with cirrhosis and hepatic encephalopathy: An autopsy-based study
10. Burden of cirrhosis and minimal and overt hepatic encephalopathy on patients and caregivers.
11. Predictors of outcome (mortality) in patients with acute on chronic liver failure (ACLF).
12. G-CSF in alcoholic hepatitis.
13. G-CSF in cirrhosis.
14. Midodrine and tolvaptan in refractory/recurrent ascites.
15. Impaired renal functions in patients with Nonalcoholic Fatty Liver Disease.
16. Assessment of quality of life in patients with nonalcoholic fatty liver disease before and after treatment.
17. Immunological profile in patients with acute-on-chronic liver failure (ACLF) and decompensated cirrhosis of liver.
18. Role of Procalcitonin in early detection of infection in Acute on Chronic liver failure patients admitted in Liver Intensive Care Unit- A pilot study.
19. Cardio-Pulmonary dysfunction in cirrhosis and short term outcome.

Indexed Publications

1. Agarwal K, Chawla YK, Bhattacharya A, Mittal BR. Fluorodeoxyglucose positron emission tomography/computed tomography findings in nodular hepatic and splenic sarcoidosis. *World J Nucl Med* 2014; 13: 144-5. Mahajan S, Avasthi A, Grover S, Chawla YK. Incidence of depression in patients with chronic hepatitis C receiving combination therapy of pegylated interferon-alpha and ribavirin. *Psychother Psychosom.* 2014;83:308-9
2. Aggarwal N, Negi N, Aggarwal A, Bodh V, Dhiman RK. Pregnancy with portal hypertension. *J Clin Exp Hepatol* 2014; 4:163-71.
3. Agrawal S, Dhiman RK. Hepatobiliary quiz 11. *J Clin Exp Hepatol* 2014; 4:271-5.
4. Agrawal S, Dhiman RK. Hepatobiliary quiz-10. *J Clin Exp Hepatol.* 2014 ;4:184-7
5. Agrawal S, Dhiman RK. Hepatobiliary quiz-12. *J Clin Exp Hepatol.* 2014; 4:376-9.
6. Agrawal S, Duseja A, Gupta T, Dhiman RK, Chawla Y. Simple organ failure count versus CANONIC grading system for predicting mortality in acute-on-chronic liver failure. *J Gastroenterol Hepatol* 2015; 30:575-81.
7. Agrawal S, Umopathy S, Dhiman RK. Minimal hepatic encephalopathy impairs quality of life. *J ClinExpHepatology* 2015;5 (Suppl 1):S42-8.
8. Chawla YK, Bodh V. Portal vein thrombosis. *J ClinExpHepatology* 2015; 5:22-40.
9. Chinnaswamy S, Das K, Bairagya BB, Bhattacharyya C, Shalimar, Duseja A, et al. Association of IL28B single nucleotide polymorphism rs8099917 with response to treatment in genotype 3 HCV-infected patients from India. *Trop Gastroenterol* 2014; 35:96-102.
10. Dhiman RK, Agrawal S, Gupta T, Duseja A, Chawla Y. Chronic Liver Failure- Sequential Organ Failure Assessment is better than the Asia-Pacific Association for the Study of Liver criteria for defining acute-on-chronic liver failure and predicting outcome. *World J Gastroenterol* 2014; 20:14934-41.
11. Dhiman RK, Rana B, Agrawal S, Garg A, Chopra M, Thumbaru KK, et al. Probiotic VSL#3 reduces liver disease severity and hospitalization in patients with cirrhosis: a randomized, controlled trial. *Gastroenterol* 2014; 147:1327-37.
12. Dhiman RK. Future of therapy for Hepatitis C in India: A Matter of Accessibility and Affordability? *J Clin Exp Hepatol* 2014; 4:85-6.
13. Dhiman RK. Hepatic encephalopathy. *J ClinExpHepatology* 2015;5 (Suppl 1):S1-2.
14. Dhiman RK. The Fifth Year of JCEH: The Year of Recognition. *J Clin ExpHepatol* 2015; 5:1.
15. Duseja A, Singh SP, Saraswat VA, Acharya SK, Chawla YK, Chowdhury S, et al. Non-alcoholic Fatty Liver Disease and Metabolic Syndrome-Position Paper of the Indian National Association for the Study of the Liver,

- Endocrine Society of India, Indian College of Cardiology and Indian Society of Gastroenterology. *J Clin Exp Hepatol* 2015; 5:51-68.
16. Duseja A. Staging of hepatocellular carcinoma. *J Clin Exp Hepatol*. 2014;4(Suppl 3):S74-9.
 17. Grover S, Sarkar S, Jhanda S, Chawla Y. Psychosis in an adolescent with Wilson's disease: A case report and review of the literature. *Indian J Psych* 2014;56:395-8
 18. Gupta R, Singh V. Indian Tick Typhus – An Uncommon Cause of Hepatitis: A Case Report. *JCDR*. 2014; 8: 1-2.
 19. Gupta T, Agrawal S, Dhiman RK. Tuberculosis and Liver Diseases. *World Clin Pulm Crit Care Med*. 2015;
 20. Kanwar AJ, Vinay K, Heelan K, Walsh S, Shear NH, Dhiman RK. Use of rituximab in pemphigus patients with chronic viral hepatitis: report of three cases. *Indian J Dermatol Venereol Leprol* 2014; 80:422-6.
 21. Kaur N, Minz RW, Anand S, Saikia B, Aggarwal R, Das A, Thapa BR, Chawla YK. HLA DRB1 Alleles Discriminate the Manifestation of Autoimmune Hepatitis as Type 1 or Type 2 in North Indian Population. *J Clin Exp Hepatol* 2014;4:14-8
 22. Kumar A, Acharya SK, Singh SP, Saraswat VA, Arora A, Duseja A, et al. The INASL Task-Force on Hepatocellular Carcinoma. The Indian National Association for Study of the Liver (INASL) Consensus on Prevention, Diagnosis and Management of Hepatocellular Carcinoma in India: The Puri Recommendations. *J Clin Exp Hepatol* 2014; 4(Suppl 3):S3-S26.
 23. Kumar S, Chawla YK, Ghosh S, and Chakraborti A. Severity of Hepatitis C Virus (Genotype-3) infection positively correlates with circulating MicroRNA-122 in patients sera. *Disease Markers* 2014;2014:435476
 24. Mahajan S, Avasthi A, Grover S, Chawla YK. Role of baseline depressive symptoms in the development of depressive episode in patients receiving antiviral therapy for hepatitis C infection. *J Psychosom Res* 2014 ;77:109-15
 25. Majumdar M, Ratho R, Chawla Y, Singh MP. Evaluating the role of low-speed centrifugation towards transfecting human peripheral blood mononuclear cell culture. *Indian J Med Microbiol* 2014;32:164-8.
 26. Majumdar M, Singh MP, Goyal K, Chawla Y, Ratho RK. Detailed investigation of ongoing subclinical hepatitis E virus infections; occurring in outbreak settings of North India. *Liver Int* 2015;35:826-3.
 27. Prabhakar N, Vyas S, Taneja S, Khandelwal N. Intrahepatic aneurysmal portohepatic venous shunt: what should be done? *Ann Hepatol* 2015; 14:118-20.
 28. Puri P, Anand AC, Saraswat VA, Acharya SK, Dhiman RK, Aggarwal R, et al. Consensus Statement of HCV Task Force of the Indian National Association for Study of the Liver (INASL). Part I: Status Report of HCV Infection in India. *J Clin Exp Hepatol* 2014; 4:106-16.
 29. Puri P, Anand AC, Saraswat VA, Acharya SK, Sarin SK, Dhiman RK, et al. Consensus Statement of HCV Task Force of the Indian National

- Association for Study of the Liver (INASL). Part II: INASL Recommendations for Management of HCV in India. *J Clin Exp Hepatol* 2014; 4:117-40.
30. Rai R, Saraswat VA, Dhiman RK. Gut microbiota: its role in hepatic encephalopathy. *J ClinExpHepatology* 2015;5 (Suppl 1):S29-36.
 31. Rathi S, Dhiman RK. Hepatobiliary quiz-13. *J Clin Exp Hepatol*. 2015; 5:100-4.
 32. Rathor M, Lal A, Dhiman RK. Spontaneous rupture of hepatocellular carcinoma. *J Clin Exp Hepatol* 2014; 4:188-9.
 33. Saxena R, Chawla YK, Verma I, Kaur J. Association of interleukin-10 with hepatitis B virus (HBV) mediated disease progression in Indian population. *Ind J Med Res* 2014;139:737-45
 34. Saxena R, Chawla YK, Verma I, Kaur J. Effect of IL-12B, IL-2, TGF- β 1, and IL-4 Polymorphism and Expression on Hepatitis B Progression. *J Interferon Cytokine Res* 2014;34:117-28
 35. Saxena R, Chawla YK, Verma I, Kaur J. IFN- γ (+874) and not TNF- α (-308) is associated with HBV-HCC risk in India. *Mol Cell Biochem* 2014;385:297-307
 36. Saxena R, Chawla YK, Verma I, Kaur J. IL-6(-572/-597) polymorphism and expression in HBV disease chronicity in an Indian population. *Am J Hum Biol* 2014 I;26:549-55
 37. Sharma V, Aggarwal A, Singla R, Kalra N, Chawla YK. An elderly man with a huge liver. *J ClinExp Hepatol* 2014; 4:370.
 38. Sharma V, Aggarwal A, Singla R, Kalra N, Chawla YK. Giant hemangioma causing budd-Chiari syndrome. *J ClinExpHepatology* 2014; 4:380-1.
 39. Singh MP, Majumdar M, Budhathoki B, Goyal K, Chawla Y, Ratho RK. Assessment of dried blood samples as an alternative less invasive method for detection of Hepatitis E virus marker in an outbreak setting. *J Med Virol* 2014;86:713-9
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 - 41.** Singh V. Decompression of malignant biliary obstruction after failed ERCP: To EUSBD and Not to PTBD? *DDS* 2015; 60:288-89.
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 43. Taneja S, Wadhawan M, Gupta S, Goyal N, Vasudev K, Chaudhary A. Congenital hepatic fibrosis with extra hepatic porto-systemic shunt and Hepatopulmonary syndrome successfully managed with Living Related Liver Transplantation. *Trop Gastroenterol* 2014;35:116-118
 44. Umapathy S, Dhiman RK, Grover S, Duseja A, Chawla YK. Persistence of cognitive impairment after resolution of overt hepatic encephalopathy. *Am J Gastroenterol* 2014; 109:1011-9.
 45. Verma N, Bhalla A, Kumar S, Dhiman RK, Chawla YK. Wild mushroom poisoning in north India: case series with review of literature. *J ClinExp Hepatol* 2014;4:361-5

46. Verma N, Bhalla A, Kumar S, Dhiman RK, Chawla YK. Wild mushroom poisoning in north India: case series with review of literature. J Clin Exp Hepatol 2014; 4:361-5.

Chapters in Books

- Dhiman RK. Chronic viral hepatitis. In: Munjal YP, editor, New Delhi: API Textbook of Medicine. 10thed. JP Publishers Pvt Ltd. 2015. p 1174-80
- Duseja A. Non – alcoholic Fatty Liver Disease. In: Munjal YP, editor, New Delhi: API Textbook of Medicine 10th ed, Munjal YP, ed. N Delhi: JP Publishers Pvt Ltd 2015. P 119-03
- Choudhary N, Duseja A. Hepatitis B virus. In : Hasan M, Akbar SM, Mehtab MA, editors, Textbook of Gastroenterology & Hepatology 1st ed. New Delhi JP Publishers Pvt Ltd 2015. p 164-75.
- Bodh V, Duseja A, Chawla Y. Hepatitis C vaccine. In: Adult immunization second ed, Muruganathan A, Mathai D, Sharma SK, ed. Mumbai : JP Publishers Pvt Ltd; 64 -72, 2015.
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- Agrawal S, Duseja A. NAFLD – in India – Is it different from the west? In : Kumar A, editor. Monograph on Non Alcoholic Steatohepatitis (NASH), Kumar A, ed. New Delhi: Association of physicians of India 2015 p 62-9, 2015.
- Duseja A. Non – Alcoholic fatty liver disease. In: Upadhyaya R, editor. Medicine Update 25 ed,. New Delhi: Association of physicians of India 2015 p 371-6 371 – 6, 2015.
- Sakpal M, Duseja A. Acute viral hepatitis in elderly. In: Sanchettee P, editor. Textbook of Geriatric Medicine 1st ed,. N Delhi: Paras Medical Publishers 2014. P.81.

PART-1 (AWARDS HONOURS)

1. Dr. Y.Chawla chaired the 'Dr. Pran Nath Chhuttani Oration' on "Developing in house reagents for the diagnosis of Chikungunia and Dengue" held at AllMS, Rishikesh in October, 2014.
2. Dr Dhiman has been elected as President for the years 2014-2016 of the prestigious International Society for Hepatic Encephalopathy and Nitrogen Metabolism (ISHEN).
3. Dr Dhiman is Editor-in-Chief of Journal of Clinical and Experimental Hepatology (JCEH), which is an international peer reviewed official Journal of Indian National Association for the Study of Liver (INASL).
4. Dr Dhiman served as Course Director for American College of Gastroenterology (ACG) Postgraduate Course for India of Annual Meeting of ACG held at Philadelphia in October 2014.
5. Dr. Virendra Singh was awarded Dr S R Naik Memorial Award for the year December 2014; given by Indian Society of Gastroenterology.
6. Dr. Virendra Singh was selected as a member of International Club of Ascites Scientific Committee in February, 2015.

PART-II (DEPARTMENTAL HIGHLIGHTS)

Dr. Virendra Singh organized International Conference on Ascites in February, 2015 at PGI, Chandigarh. The Department organized Public Forum and Poster Making Competition on "Organ Donation" on September 5, 2014. The Department organized a Workshop on 'Organ donation' for the nursing staff and transplant coordinators on March 7, 2015. The Department, in association with department of Gastroenterology, AllMS, New Delhi organised the 13th Current Perspectives in Liver Diseases (CPLD) with single theme meeting on Emergency care in Liver Diseases' on October 4 and 5, 2014.

PART – III (RESEARCH HIGHLIGHTS)

Cerebral edema increases with severity of ACLF and is predominantly due to extracellular brain water increase. Simple organ failure count is a simpler and better method than the CANONIC grading system for predicting the in-hospital mortality in patients with ACLF defined as per APASL criteria. Vitamin D treatment improves biochemical and adipocytokine profile in patients with NAFLD.

