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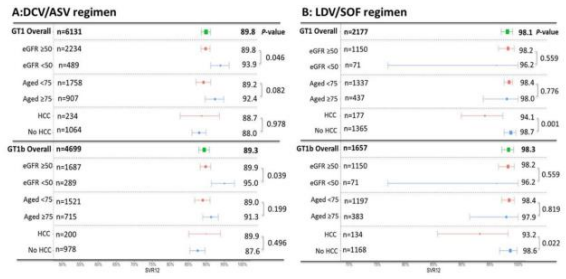

O-HCV-38

Treatment of chronic hepatitis C with ledipasvir/sofosbuvir combination during pregnancy

***Ghulam Nabi Yattoo*[1]**

[1]SKIMS, India

Background: There are no studies of HCV treatment during pregnancy. Treatment of HCV during pregnancy will reduce vertical transmission. Detection of a chronic infection leads to anxiety among patients and household. Explaining the diseases to patient sometimes leads to treatment by quacks and unauthorized persons. We treated some patients of chronic HCV infection during pregnancy with ledipasvir and sofosbuvir as patients were very anxious and requested the treatment.
Method: Only those pregnant females were enrolled who after explaining the disease and urgency of treatment and psychiatric evaluation were ready for treatment during pregnancy. Treatment was started during second and early third trimester. Only non cirrhotic patients were enrolled.Patients were followed closely clinically an serial investigations and foetal ultrasonography. Patients received ledispavir/sofosbuvir (90/400 mg) for 12 weeks.
Result: We enrolled 15 patients in our study and study is ongoing. Mean age of patients was 27 years with rage of 21 to 36 years. All patients were non cirrhotic with mean fibroscan value of 5.5kpa and treatment naive. Mean RNA Was 7.2X105 IU/ml. Among enrolled patients genotype 3 constituted 10 (67%), genotype 1 constituted 4 (27%). All patients achieve RVR as well as SVR12. All patients tolerated treatment well however some patients reported nausea (40%), headache (33%) and fatigue (27%). No serious adverse reaction was reported . All patients had institutional delivery and the babies were reported normal on paediatric examination. Serial ultrasonography antenatal and postnatal were normal. We are following the babies for effec on vertical transmission.
Conclusion: Although study sample is small but it seems that ledipasvir and sofosbuvir is well tolerated and safe in pregnancy. Larger studies are needed.

O-HCV-39

The real-life experience with directly acting antivirals in chronic hepatitis C treatment: a single center experience from Turkey

***Serkan Yaras*[1], Serkan Yaras[1], Enver Ucbilek[1], Ibrahim Yilmaz[1], Osman Ozdogan[1], Engin Altintas[1], Orhan Sezgin[1]**

[1]Mersin University Faculty of Medicine, Turkey

Background: Directly acting antiviral drugs (DAA) are known to be successful in the treatment of chronic hepatitis C (CHC). For about 1 year in our country, these drugs are routinely used in the treatment of CHC. We intend to share our experience of our own clinic, Mersin University Faculty of Medicine, Gastroenterology Division.
Method: From July 2016 to August 2017, we started DAA therapy for a total of 230 CHC patients in our clinic.
Result: The mean age of the patients was 63.7 ± 14.4 years.Ledipasvir/Sofosbuvir combination treatment started for patients 154/230, and Ombitasvir, Paritaprevir, Dasabuvir, Ritonavir combination (3D) started for 76 patients (table1). The patients generally benefited from the treatment and HCV RNA clearance was achieved during treatment in all but one patient. In the Ledipasvir/Sofosbuvir group, 1 patient was unresponsive to treatment, and 2 patients had recurrence after HCV RNA clearance. No recurrence or no response was observed in the 3D group, so far. Patients generally have tolerated the treatment well. Two patients with decompansated cirrhosis had increase in ascites, resistant to diuretic use. In one of these two patients, denovo ovarian Ca diagnosed. The increase in bilirubin serum level was observed in 3 patients using 3D, in which the treatment was completed without dose modification. The most common side effects were fatigue and pruritus in both groups. No patient had to discontinue treatment due to side effects.
Conclusion: Our patients almost absolutely got sustained viral response by DAA treatment. We observed that the DAA treatment for patients with chronic hepatitis C is highly effective and well tolerated.

	Ledipasvir / Sofosuvir group (n=154)	Ombitasvir, Paritaprevir/ Dasabuvir/ Ritonavir (3D) combination group (n=76)
Male/Female (n/n)	58/96	31/45
Mean age ±SD	64,6±13,2	61,8±13,9
Genotype 1a (n)	3	6
Genotype 1b(n)	122	43
Genotype 1(a-b unknown)(n)	22	26
Genotype 2(n)	4	0
Genotype 3(n)	2	0
Genotype 4(n)	1	1
Cirrhotic (n)	102	9
Accompanying Renal Failure(n)	0	25
Naive to treatment (n)	51	56
PegIFN-Ribavirin treatment in the past (n)	68	18
Boceprevir treatment in the past (n)	17	2
Telaprevir treatment in the past (n)	18	0
12 weeks treatment for (n)	39	76
24 weeks treatment for (n)	115	0
Additional Ribavirin treatment (n)	43	9
End-Treatment Response Failure	1	0
Recurrence (n)	2	0
End Treatment Viral Response(%)	99.4	100
Sustained Viral Response(%)	99.4	100
Interruption of treatment due to side effects (n)	0	0

Table 1: Some data from our CHC patients group receiving DAA therapy

O-HCV-40

Bioinformatics Modeling of HCV proteins with mutations of resistance to antivirals

***Karina Alejandra Salvatierra*[1]**

[1]Universidad Nacional de Misiones, Argentina

Background: Chronic hepatitis C virus (HCV) infection remains a worldwide public health problem, resulting in about 10,000 deaths a year. It is estimated that 3% of the world's population (200 million people in the world) are infected by this virus. Therefore, it is important to analyze the HCV resistance mutations and their possible impact on the treatment with direct-acting antiviral (DAA) to prevent potential therapeutic failures.
Objetive: Model the NS3, NS5A and NS5B proteins with antiviral resistance mutations.
Method: In order to design and develop an online information system, we used different computer applications, technological tools,

[1]Hirosaki University Graduate School of Medicine, Japan

Background: It has become clear that the impairment of hepatocyte membrane transporters, which are responsible for cell membrane transport of organic anions, such as bilirubin and bile acids, can lead to intrahepatic cholestasis after hepatectomy. This pathophysiologic study aimed to clarify the mechanism of organic anion metabolism abnormality and liver regeneration failure during infectious hepatic failure after hepatectomy from the viewpoint of molecular biology "abnormality of organic anion transporters."
Method: Male Sprague-Dawley rats weighing 180-220 g and aged 6 weeks underwent 70% hepatectomy with lipopolysaccharide (LPS) administration in the inferior vena cava under general anesthesia. At 3 time-points (24, 72, and 168 hours after hepatectomy) the rats were sacrificed to obtain liver samples by exsanguination. We divided the rats into 4 groups: LPS + 70% hepatectomy group, sham operation group, LPS alone administration group, and 70% hepatectomy group. The hepatobiliary enzymes and bilirubin levels were measured from the obtained blood. The RNAs were extracted from the liver samples, and the gene expression profile was analyzed by microarray.
Result: Transaminase, total bilirubin, and bile acid levels were elevated after 24 hours in the LPS + 70% hepatectomy group compared with the 70% hepatectomy group. In the microarray analysis, the levels of organic anion transporting polypeptides (Oatps), which are sinusoidal side transporters that extract the bilirubin in the blood, and sodium taurocholate cotransporting polypeptide (Ntcp) that uptakes the bile acids from the blood, and ATP binding cassette protein C2 (Mrp2) that excrete the bile acids into bile duct, tended to decrease compared with the 70% hepatic resection group. In the RT-PCR, the similar decrease trend was confirmed.
Conclusion: This study suggested that during liver regeneration in the case of infection after hepatectomy versus normal hepatectomy, the organic anion transporter impairments on the hepatocyte membrane might be enhanced and hyperbilirubinemia would be prolonged.

PP-B-07

The Influence Of MTHFR Gene Polymorphism On The Long Term Course In G1 Hepatitis C Patients Who Are Achieved Sustained Viral Response With Treated With Pegylated Interferon Plus Ribavirin.

***Engin Altintas*[1], Zuhal Mert Altintas[1], Ibrahim Yilmaz[1], Halil Celik[1], Enver Ucbilek[1], Serkan Yaras[1], Osman Ozdogan[1], Fehmi Ates[1], Orhan Sezgin[1]**

[1]Mersin University Faculty of Medicine, Turkey

Background: A genetic history, such as the MTHFR polymorphism responsible for hyperhomocysteinemia, plays a role in the development of high-grade steatosis and accelerates the progression of liver fibrosis in chronic hepatitis c. The aim of this study was to investigate the long-term effects of MTHFR gene polymorphism in genotype 1 (G1) hepatitis C patients who achieved sustained viral response (SVR) with pegylated interferon plus ribavirin (PIR) therapy.
Method: 58 G1 hepatitis C patients who had SVR with PIR therapy and who had been followed since 2008 were included in the study. MTHFR gene polymorphisms (C677T and A1298C) were tested by PCR-RFLP. Medical records of patients were screened between 2008 and 2017 and cases of cirrhosis and hepatocellular carcinoma (HCC) were recorded. Fibrosis status was assessed by the non-invasive methods (APRI, FIB-4, FORNS index). The difference between the values between 2008 and 2017 was recorded as Δ APRI, Δ FIB-4, Δ FORNS index.
Result: One patient had HCC and 7 patients had cirrhosis. Because there were few patients, cirrhosis and HCC were taken as event group. For MTHFR C677T, 34 patients had wild type and 24 had mutant alleles. For MTHFR A1298C, 32 patients were wild type and 25 patients had mutant alleles. There was no statistically significant relationship between MTHFR C677T and A1298C and events occurring in the course ($p = 0.859$, $p = 0.273$, respectively). There was no interaction for both C677T and A1298C in the change of APRI, FIB-4, FORNS index over years ($p > 0.05$). Those of the MTHFR C677T wild type; the mean value of the APRI parameter was decreased from 0.73 ± 0.49 to 0.29 ± 0.09 and there was a significant difference ($p < 0.001$). Those with MTHFR C677T mutant alleles; the mean value of the APRI parameter was increased from 0.87 ± 0.68 to 1.75 ± 4.80 and this change was not significant ($p = 0.551$). The Δ APRI difference between the two groups was significant ($p = 0.022$). There was no significant difference in Δ values for MTHFR A1298C and for other criteria.
Conclusion: Improvement in fibrosis appears to be adversely affected in patients with the MTHFR C677T allele just for APRI score but not for others. It should be evaulated or supported by more works.

PP-B-08

Decellularization and recellularization of liver scaffold with human hepatic progenitor cells for the development of neo-organ

***Mohd Aejaz Habeeb*[1] Avinash Bardia[1], Nagarapu Raju[1], Safwaan Habeeb[1], Aleem Ahmed Khan[1], Mohd Aejaz Habeeb[1]**

[1]Centre for Liver Research & Diagnostics,, India

Background: Acute as well as chronic liver failures are major fatal problems which lead up to 60-80% mortality every year. In acute condition, systemic inflammation and accumulation of toxic compounds (ammonia) in liver results in multi-organ failure which leads to hepatic encephalopathy. Pharmacological drugs are not enough capable of removing toxins from liver; whereas in chronic condition, liver transplantation is the only option. However, liver transplantation is limited due to timely unavailability of enough donors, post-transplantation complications and high cost involvement. The present study demonstrates a promising strategy of using natural platform of bioartificial extracorporeal liver support system prepared through decellularization and repopulation of xenogenic liver with human hepatic progenitor cells (hHPCs).
Method: Xenogenic liver was decellularized by perfusion method using retrograde change of detergents and other chemicals. Removal of nuclear components, retention of ECM and vascular integrity of whole decellularized liver was identified. DiD-labeled hHPCs were infused to identify the cells distribution and engraftment efficiency. Repopulation of hHPCs within the decellularized liver scaffold was determined by SEM analysis whereas the functional activity of repopulated cells was determined by ammonia detoxification experiment by urea quantification
Result: The decellularized liver vascular network was able to withstand fluid flow that entered through a central inlet vessel, branched into an extensive capillary bed, and coalesced into a single outlet vessel. Repopulated hHPCs showed homogeneous distribution within the decellularized liver scaffold showing defined vascular tree with multiple branching and residual niches of proliferating cells. Ammonia detoxification showed the functional activity and future applicability of repopulated humanized liver scaffold as extra-corporeal natural organ support system.
Conclusion: This study demonstrate an innovative technology for bioengineering humanized extra-corporeal liver system as better approach for ammonia detoxification as temporary support to the failing liver.