SASLT
الجمعية السعودية لأمراض وزراعة الكبد
Saudi Society for the Study of Liver Disease and Transplantation

الجمعية تحت إشراف
الهيئة السعودية للتخصصات الصحية
Saudi Commission for Health Specialties

7th Issue

November 2023

SASLT NEWSLETTER

www.saudisaslt.org.sa

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Introduction

Welcome Message

Welcome to the 7th edition of the Saudi Society for the study of Liver disease and Transplantation (SASLT) newsletter. It is our great pleasure to present to you the highlights of this year Saudi Liver Meeting (SLM) held on the 26th – 28th of October 2023 at Riyadh Marriot Hotel.

The SLM provides a platform for experts, colleagues, healthcare providers, and associates to exchange information, discuss the latest research, and explore new developments in Hepatology and liver transplantation. It also offers an opportunity to network with leading experts in the field.

At SASLT, our mission is to advance knowledge about liver health and disease, with particular emphasis on excellence in clinical hepatology and liver transplantation in the Kingdom of Saudi Arabia. We strive to promote research and innovation and collaborate with all stakeholders to create a society with a healthy liver.

In this newsletter we are going to highlight on some of what was presented in this recently concluded meeting.

We would like to thank everyone who attended this conference and we hope they had a great experience.

It is a great honour in this edition of the newsletter to have Professor Mario Rizzetto writing about the Hepatitis Delta virus (HDV). Professor Rizzetto was awarded the King Faisal Award for the category of medicine for his discovery of the delta antigen and its role in fulminant and chronic hepatitis in the year 1985.

I hope that you enjoy reading this 7th edition of SASLT newsletter.

Sincerely,

Dr. Faisal AbaAlkhail

Editor

Editor of this Newsletter

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HEPATITIS D VIRUS INFECTION: UPDATE AND CHALLENGES

KEY POINTS

- HDV has a unique biology compared to other human viruses.
- HDV causes the most severe form of viral hepatitis.
- Control of HBV by vaccination is reducing hepatitis worldwide.
- New therapies against hepatitis are in development, the most promising is Bulevirtide
- Liver transplantation provides a valid therapeutic option for terminal HDVdisease.

INTRODUCTION

Originally considered another immunogen of the HBV, the delta antigen described in 1977 in Italy in carriers of the Hepatitis B surface antigen (HBsAg) was shown by chimpanzees studies conducted at the US National Institutes of Health to be the expression of a new virus which is defective and unable to produce its own envelope, therefore depending on the Hepatitis B Virus (HBV) for the provision of the surface proteins (HBsAg) necessary to infection (1).

The HDV is the smallest virus in human virology, representing the sole member of the Deltavirus genus, within the realm Rybozyviria (2). It is an ubiquitous pathogen causing hepatitis D, which is the most severe of viral hepatitides (3) ; however, the prevalence of the infection remains unknown in many countries due to lack of population-based studies and unreliable testing .

THE HEPATITIS D VIRUS: A UNIQUE HUMAN PATHOGEN

The viral genome is a single-stranded circular RNA of about 1700 nucleotides; it is too small to code for complex replication enzymes or envelope proteins and codes only for a small non-enzymatic protein, the Hepatitis D antigen (HDAg) (4) . The virus contains a domain of about 100 nucleotides that acts as a ribozyme, cleaving the viral RNA at specific sites without participation of enzymes (4). The virion is a particle of about 35 nm in diameter coated by the HBsAg (figure 1 A and B). After entering into hepatocytes through the attachment of the HBsAg capsid to the sodium taurocholate co-transporting polypeptide (NTCP) (5), the HDV replicates in the nuclei by a rolling circle mechanism unknown to animal cells (4) and uses the ribozymes to self-cleave both in the genomic and antigenomic strands (5,6). The HBsAg is required not only for the HDV to enter into hepatocytes but also to assemble the virion for release to the blood.

It was initially believed that HDV is unique to man and coevolved in association with the HBV (7).However many HDV-like viruses with no detectable hepadnavirus were recently discovered in distantly related species such as fishes, birds, amphibians, and invertebrates (8); their biological significance remains at present unexplained.

THE CURRENT EPIDEMIOLOGIC AND MEDICAL SCENARIO

HDV is transmitted primarily by superinfection of persons with chronic HBV infections (9). Superinfections result in about %90 of cases in chronic HDV infection and chronic hepatitis D. Individuals with antibodies to the HBsAg are protected from the infection.

Diagnosis of hepatitis D relies on specific serology (10); an algorithm for the clinical management of HDV infection is shown in figure 2. The screening test is the antibody to the HD-Ag (anti-HD); this is raised by all immunocompetent patients exposed to the virus (11) and should be determined only in HBsAg-positive subjects.

Individuals should be tested for serum HDV RNA, to determine whether an active infection is present. When present in HBsAg-carriers with no HDV-RNA in serum, anti-HD represents a serological scar to past HDV infection. The European (EASL) (12) and the Asian-Pacific (APASL) Associations for the Study of the Liver (13) recommend to test for anti-HD all HBsAg-positive persons; the antibody should be determined by reflex testing as soon as the HBsAg state of the patient is recognized, irrespective of his epidemiological and clinical status (14).

With the control of HBV achieved with the advent of vaccination in the last thirty years, the scenario of hepatitis D has changed (15); vaccination is depleting the number of HBsAg carriers susceptible to HDV, leading as a secondary effect to the global decline of its infection. The circulation of the virus has much decreased in native populations of Western Europe and of many other countries that adequately implemented HBV prophylaxis, including Saudi Arabia, Caucasian countries, Turkey, Iran and India, figure (15) 3: the remaining cohorts of native HDV patients were infected long ago, are aging and by now have advanced hepatitis D to which only liver transplantation may offer a therapeutic option (16). However, hepatitis D is returning to high income countries through immigration from areas where HDV remains endemic, such as Moldovia, Mongolia, Central Africa and Central-South Asia (3)

Clinical studies have shown that that HDV is highly pathogenic, causing a chronic hepatitis D (CHD) that often leads to cirrhosis, liver failure and hepatocellular carcinoma; the clinical and histological features of the disease are not specific yet progression is more rapid than for the other types of viral hepatitides (17).

While HBV vaccination is expected in the future to significantly reduce the global prevalence of HDV infection, the burden of hepatitis D remains high with clinical features of a severe chronic hepatitis in many countries of Africa and Asia where the rate of HBsAg carriers in the population still exceeds (18) % 3. Of note local HDV prevalence figures reported from many of these areas are erratic, primarily for the disparate sampling of HDV cases; because of the high pathogenic potential of HDV , prevalence figures of the infection should best be determined in patients with HBsAg liver disease recruited at medical centers rather than in asymptomatic HBsAg individuals at low risk of HDV recruited for convenience at blood banks or social centers (18).

MEDICAL THERAPY

The HDV has no enzymatic outfit of its own, relies for synthesis on the replicative machinery of the hepatocyte and attempts to cure CHD by inhibiting the concomitant HBV infection with lamivudine, adefovir, entecavir, tenofovir had no effect (19) Pegylated Interferon alfa has been used off-label following the recommendation of major liver societies; results are limited (19).

New therapeutic strategies are aimed at depriving the HDV of collateral HBsAg functions critical to its life-cycle (11). Drugs in clinical development are Bulevirtide (BLV), Lonafarnib and Nucleic Acid Polymers (20). The mechanisms of action of these drugs are shown and described in Table 1 and figure 4. The largest experience was so far obtained with BLV, which in July 2020 was granted by the European Medicine Agency marketing authorization to the 2 mg subcutaneous daily dose of the drug for treatment of chronic compensated hepatitis D (21) . The 48 weeks interim data from an ongoing open-label randomized phase 3 study of BLV monotherapy in CHD (MYR 301) were recently reported (22) in patients randomized 1:1:1 to subcutaneous BLV 2 mg/day (n=49), 10 mg/day (n=50) or no BLV (control) (n=51). A decrease by ≥2 log10 IU/ml together with ALT normalization was achieved by (50/24) %48 ,(49/22) %45, and (51/1) %2 with BLV 2 mg/day, 10 mg/day, and control, respectively; HDV-RNA was undetectable in %12 and %20 with BLV 2mg and 10 mg, respectively. Regardless of virologic response, ALT normalized in %51 and %56 of the patients given BLV 2 and 10 mg respectively, versus %12 of control. No HBsAg loss or decrease by more than 1 log10 was observed.

A major problem in the treatment of CHD is the therapeutic endpoint (23). The only reliable end-point would be the elimination of the HBsAg; however, this is seldom achieved with therapies. As the infectivity titer of HDV for the HBsAg carrier is much higher (24) than the current analytical threshold of its detection (6 IU/mL. viral genomes), the clearance of HDV-RNA determined with current assays does not prove that infectious HDV was eliminated; in patients achieving a sustained viral response six months post-therapy (SVR) who nevertheless remain HBsAg-positive (as many patients do) residual undetectable HDV may reactivate hepatitis D post-therapy following apparent clearance of HDV-RNA ; thus in CHD the classic SVR end-point based on the HCV paradigm is an unreliable index of HDV clearance and confirmation of viral eradication requires long post-SVR follow-ups.

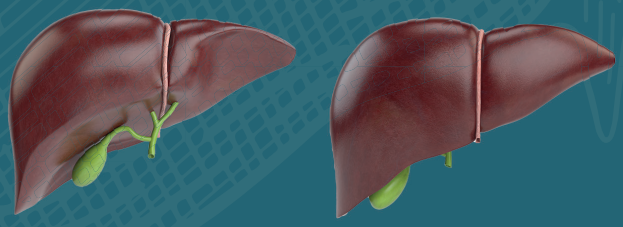
LIVER TRANSPLANTATION

The first transplants for HDV disease performed thirty years ago in Italy, France and US indicated that liver grafting was feasible with good clinical results in patients protected during and after surgery with immunoglobulins against the HBsAg (HBIG). However, an intriguing discrepancy emerged from the virologic data; in %70 to %80 of the patients the HD-Ag recurred immediately in the nuclei of graft biopsies obtained at the time of surgery and persisted for a while without evidence of biochemical or histologic liver damage.

The paradox of a high rate of graft reinfection but lack of recurrent disease, was explained by subsequent molecular studies which showed that HDV could establish subclinical intrahepatic infections but these could convert to florid hepatitis D only if and when HBV reactivated to full infection (25); however, the continuous administration of HBIG prevented the reactivation of HBV (and by default of HDV) in most transplants (26).

When nucleosid(t)e analogues (NA) against the HBV became available at the end of the 1990s, the prophylaxis of HBV transplants changed from HBIG alone to

the combination of HBIG plus NA, providing further control of HBV relapses. The results have been excellent, with only a few of several hundred HDV patients transplanted in the world experiencing a recrudescence of HDV infection in the liver graft, and the combination of HBIG with a high genetic barrier NA l (Tenofovir, Entecavir) has become standard prophylaxis in HDV transplantation(27,28).



CONCLUSIONS

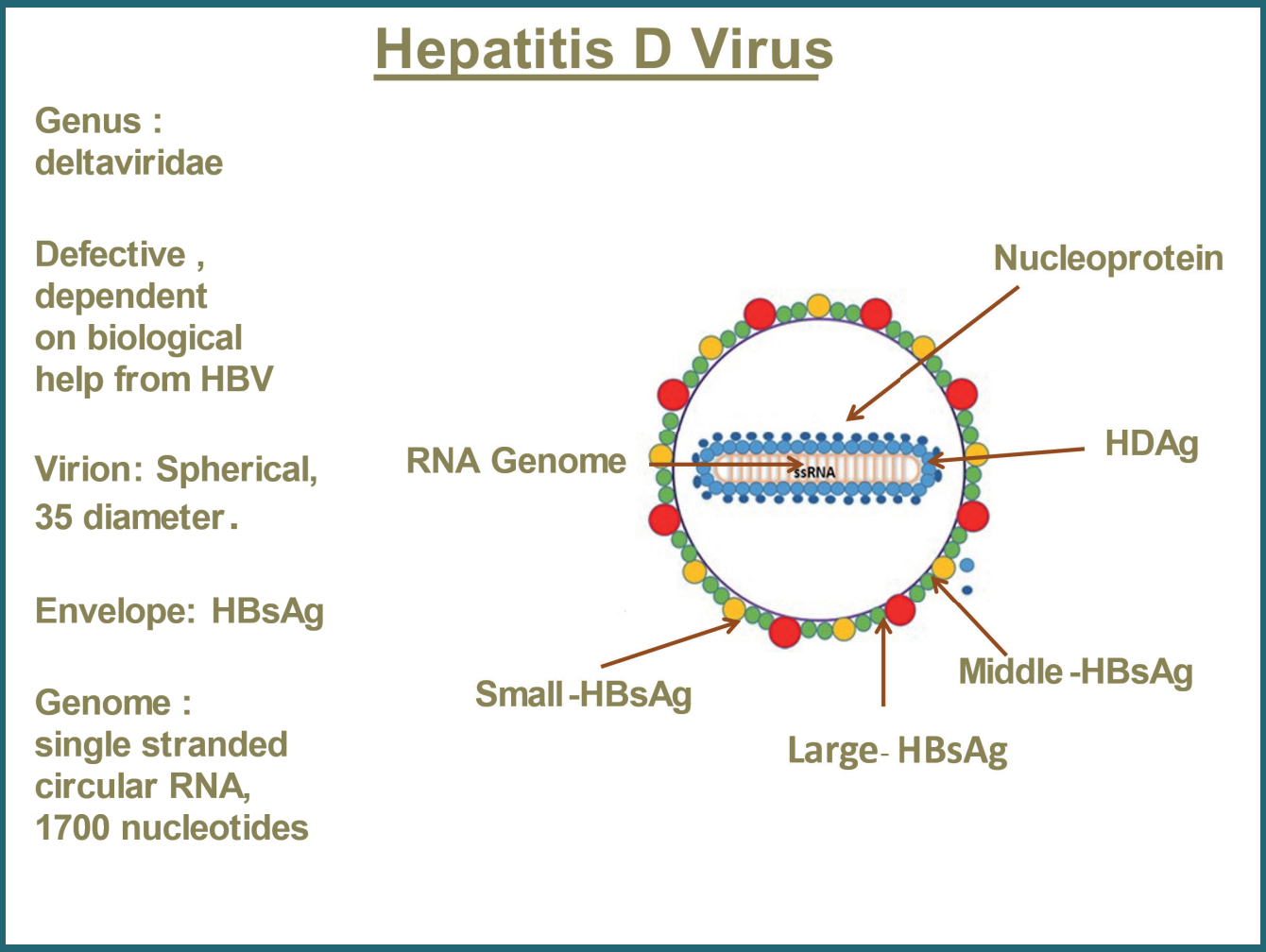
In the last thirty years vaccination against HBV has decreased the circulation of HDV in many countries; nevertheless, hepatitis D is returning to high income countries through immigration from HDV endemic areas. Hepatitis D remains a significant medical problem in areas of Africa and Asia where HBV is not controlled.

New therapeutic strategies are explored; the most promising is Bulevirtide which prevents spreading of the virus through the liver by inhibiting the entry of the virion into hepatocytes , and reduces biochemical signs of inflammation in over %50 of the patients.

FIGURE 1: A and B: Hepatitis D Virus

A-Structure

HDV shares with the HBV the viral envelope, which is composed of the small (S-HBsAg), medium (M-HBsAg) and large (L-HBsAg) HBsAg proteins. The virion contains a single-stranded circular RNA genome of about 1700 nucleotides



B-Virion (delta particle) in Electron Microscopy.
Particles of different morphology without a rigid structure, about 35 nm in diameter.

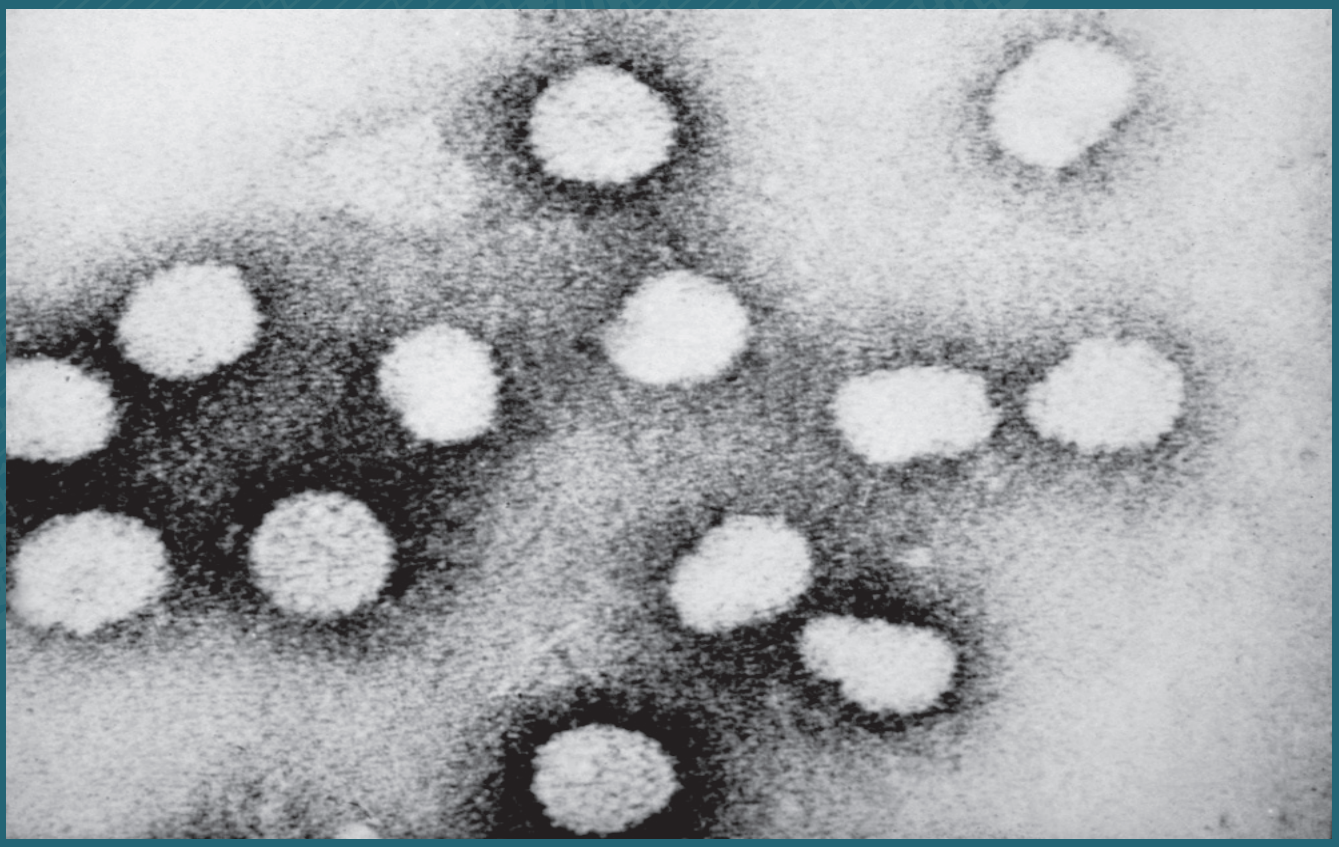


FIGURE 2: Algorithm for diagnosis and management of HDV infection and hepatitis D

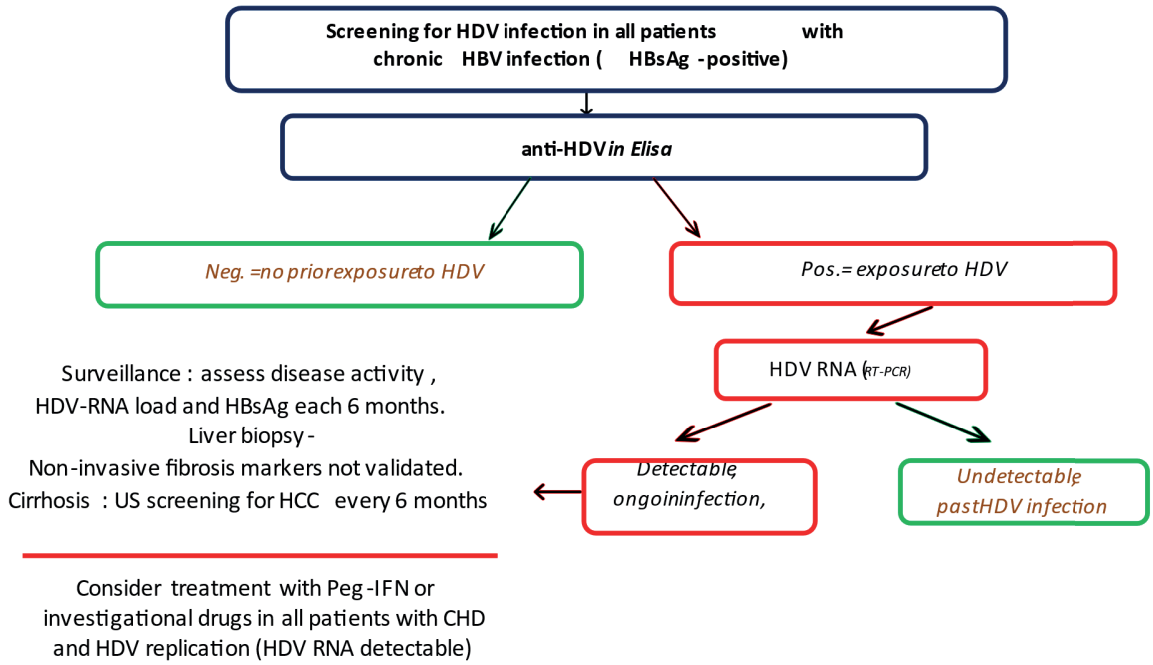


FIGURE 3: Worldwide prevalence rates of antibody to the HDV in the last 10 years (ref. 15)

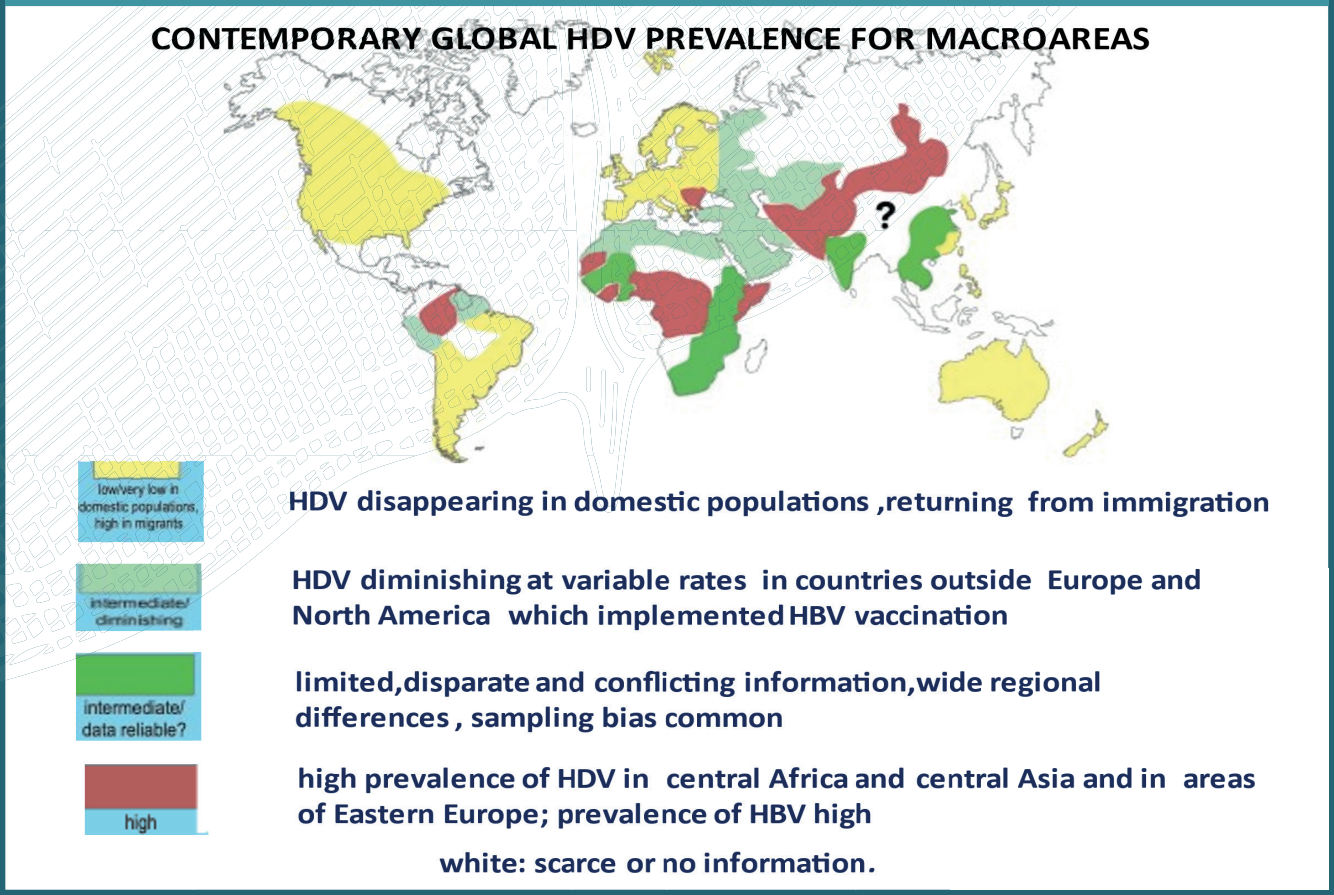


FIGURE 4: Targets of the new HDV drugs

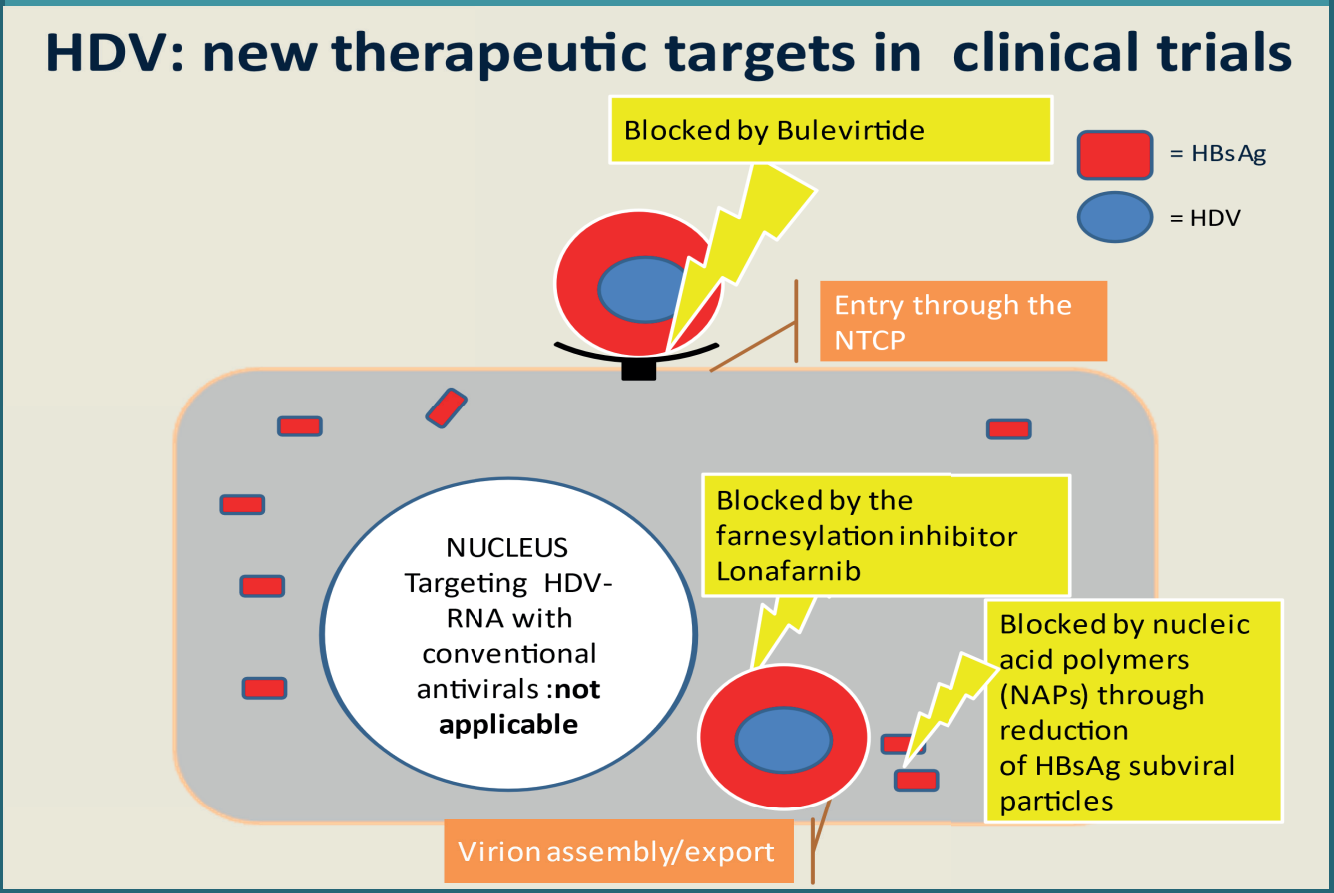


TABLE 1: Mechanisms of action of the new HDV drugs

- Bulevirtide (BLV): myristoylated L-HBsAg-derived 47-amino acid lipopeptide; inhibits irreversibly the Sodium Taurocholate Co-Transporting Receptor, blocking the access of the HBsAg-coated HDV to the hepatocyte and preventing the spreading of the virus to the liver
- Lonafarnib (LNF): orally administered prenylation inhibitor; prevents viral morphogenesis by interfering with the farnesylation of the large HDAg,
- REP-2139Ca: Nucleic Acid Polymer, inhibits the assembly and release of HBV subviral particles through the inhibition of a critical unidentified chaperone

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Prof. Mario Rizzetto

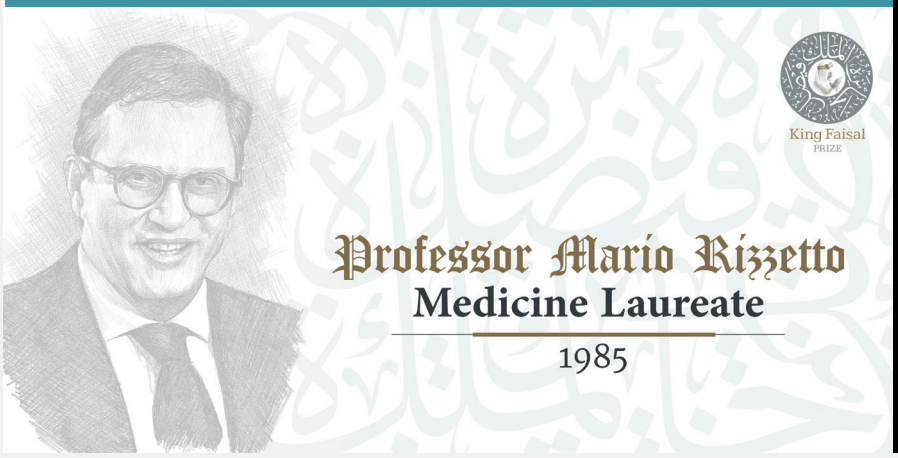
Short Biography

Mario Rizzetto, is Honorary Professor of Gastroenterology at the University of Torino, Italy. From 1995 to 2015 he was head of the Chair of Hepatogastroenterology of the University of Torino.

He had a research stage at the Middlesex Hospital in London in 1973-1972 where he described the Liver-Kidney microsomal autoantibody diagnostic of autoimmune type 2 hepatitis.His scientific carrier has been mainly devoted to the pathobiology, natural history and therapy of chronic viral hepatitides; his specific reseach field has been the epidemiological and clinical evaluation of the Hepatitis D Virus and related hepatitis D, which he discovered in the mid 1970s and characterized in subsequent years .

For the discovery of the Hepatitis D Virus he received international awards

- King Faisal Prize for Medicine 1985 (Saudi Arabia).
- Robert Koch Prize for Medicine, 1987 (Germany).
- William Beaumont Prize for Gastroenterology, 1988 (USA).
- Gold Medal for Health Service, 1988 (Italy).
- Hans Popper Prize for Hepatology, 1992 (Switzerland)
- EASL Recognition Award, for the outstanding medical and scientific contribution of a European member of EASL in the field of liver disease, 2006 (Vienna)
- Baruch S. Blumberg Prize for viral hepatitis, 2017 (USA).



Testing for hepatitis Delta Virus: Where do we stand?

Hepatitis D virus (HDV) infection affects 12 million people worldwide [1], and it always exists in the setting of hepatitis B, as it uses HbsAg for entry into the cells. The prevalence of HDV infection in HBsAg-positive patients ranges between 4.5 to [3 ,2 ,1] %14.6. Co-infection with HBV can result in serious and fulminant hepatitis. Superinfection with HDV accelerates cirrhosis and the risk of HCC [4].
%20–%10 of people with HDV infection develop cirrhosis within 2 years, and %80–%70 do so within 10–5 years [5]. Additionally, the incidence of hepatocellular carcinoma (HCC) and cirrhosis in HBV-HDV co-infection are %20 and %18, respectively [1]. Pegylated interferon (PEG-IFN) was the sole medication against HDV that was approved from 1980 until today. It is not a very effective treatment and carries many side effects. The prevalence of HDV infection in chronic hepatitis B patients even in the presence of hepatitis B vaccine remains underreported.

We decided to explore the prevalence of HBV/HDV co-infection during a period of six months (September 2022-February 2023) at King Faisal Specialist Hospital & Research Centre, Riyadh, Saudi Arabia. Additional aims included comparison of morbidity and mortality outcomes, raise awareness of HDV testing, and analyze the attitudes of physicians towards hepatitis delta testing at our center. Hepatitis delta virus serology was requested for a total of 1630 patients during the six months period. Many of these patients were following with Transplant Hepatology, Adult Gastroenterology, and Medical Oncology. Thirty-three (%2) patients out of 1630 were HDV seropositive. Most patients (%75) were referred for HDV serology testing from the transplant department. HBsAg reactivity was present in %24 of patients with HDV seropositivity. More than half of patients with positive delta serology (%54.5) were cirrhotic. The most common cause of cirrhosis was chronic HBV infection (%38.9). We concluded that compared to patients with HBsAg non-reactivity, those with HBsAg reactivity had a higher proportion of cirrhosis (%87.5), decompensated cirrhosis (%62.5), or cirrhosis and HCC (%50.0). Results suggest that patients with HDV and HBsAg reactivity have greater morbidity than those with HDV and HBsAg non-reactivity. An abstract of this study has been accepted and presented at The Liver Meeting, organized by American Association for the Study of Liver Diseases (AASLD) on November 2023 ,10. For further details, article link is provided (link attached).

Although only %2 of more than 1600 had positive delta serology, our data suggest awareness and positive changing attitudes of physicians toward HDV serology testing. In contrast, data from an international study showed that HDV serology testing was performed in 114 patients out of 1492 patients who were positive for HBsAg (%7.6), indicating that testing and awareness of HDV infection is low [6]. Moreover, physicians at the local level are concerned by the morbidity and mortality caused by hepatitis D virus infection, particularly in the setting of chronic liver disease and chronic hepatitis B infection, respectively. We observed that there has been increased demands for testing by not only Hepatologists / Gastroenterologists, but also by both

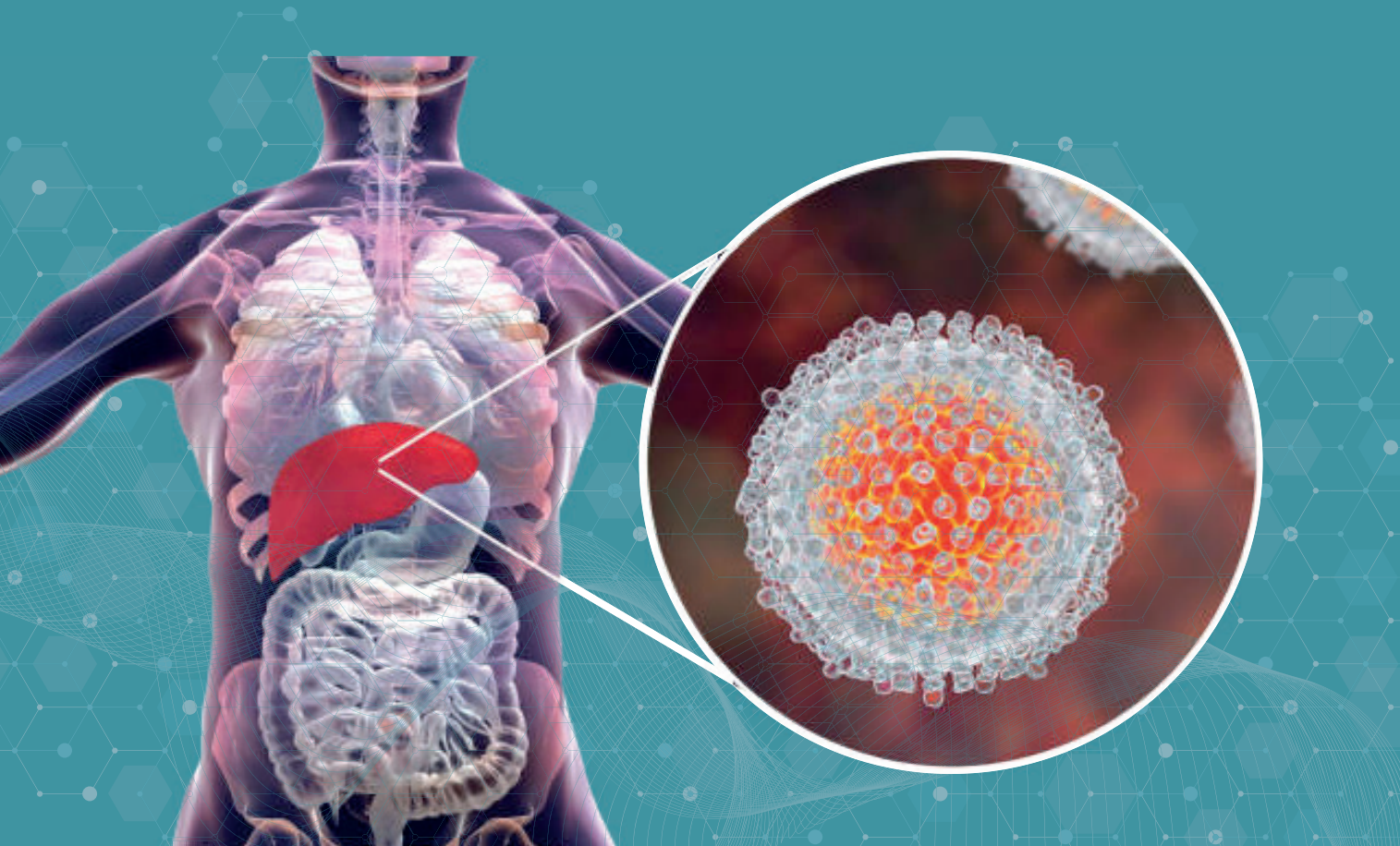
medical oncology and hematology specialists. As of such, pan viral hepatitis serology screening is requested for every patient before commencing immunosuppressive medications and chemotherapy. We plan to survey many physicians and inquiring about whether they are keen to test for hepatitis Delta serology in the future, even without the presence of concomitant hepatitis B infection.

Additionally, we believe that the prevalence of patients with positive HDV serology during the last 15-10 years should be explored on a national and at a multi-center level in the Kingdom of Saudi Arabia. In particular, data should be obtained from transplant and oncology centers. Both 2017 EASL and 2016 APASL guidelines recommend for HDV serology testing in individuals with positive HBsAg [8 ,7]. On the contrary, the 2018 AASLD guidelines recommend HDV serology testing in high-risk HBsAg-positive individuals, including men who have sex with men, those at risk of STDs, immigrants from HDV-endemic countries, and persons who inject drugs [9].

After further data collection and analysis, a position statement from the Saudi Society for the Study of Liver disease and Transplantation (SASLT) is warranted to guide healthcare practitioners (particularly gastroenterologists and oncologists) in Saudi Arabia in screening for and diagnosis of hepatitis delta virus. Additionally, local guidelines for HDV testing and management have to be established in the future.

By
Dr. Faisal AbaAlkhail

By
Dr. Asma AlNajjar



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SASLT Reviewed the Latest Technologies and New Developments in Liver Diseases and Treatments

The Saudi Society for the Study of Liver Disease and Transplantation (SASLT) hosted the "Saudi Liver Meeting" on October 2023 ,28-26, in Riyadh, KSA. Attended by local and international experts, specialists and healthcare providers from the spectrum of specialties in liver diseases and transplantation.

The conference shed light on the latest developments and treatments in liver diseases and transplantation, and the role played by technology in diagnosis and exploration. It addressed several important topics, most notably viral hepatitis, autoimmune hepatitis, as well as hepatocelluar carcinoma, cholestatic liver disease in children, acute liver failure and liver transplant.

Furthermore, the conference addressed non-alcoholic fatty liver disease, which is particularly prevalent among diabetic patients. It reviewed the obstacles that hinder progress in the diagnosis and treatment.

At the end of its activities, the Saudi Liver Meeting called for increasing community awareness of viral liver diseases and activating educational and therapeutic programs targeting different ages to avoid their spread. It also called for ensuring that everyone, especially vulnerable groups, has access to necessary information, screening, and treatment options.

The conference stressed the importance of addressing health disparities and inequalities, bridging knowledge gaps, providing healthcare and accessing treatment, and eliminating disparities faced by those at risk diagnosed with hepatitis.

The Executive Board members do believe in collaborative teamwork atmosphere with all stakeholders of SASLT, and in particular look for serious partnership with national & international related associations in order to achieve the common goals.

Potentials are great and ambitions are greater, nevertheless, none would come true without the active and continuous contribution from all colleagues in Saudi Arabia or in other Gulf & Arab countries.

Hosting the Saudi Liver Meeting is part of the SASLT awareness and educational efforts to prevent and reduce liver diseases to align with its mission to have “a society with no liver disease burden”. It also comes in response to the great interest given by SASLT to enhance knowledge about liver health and diseases, through the establishment of such events aimed at keeping pace with the latest developments in the field of liver diseases and modern treatment methods, making the most of the available capabilities and exchanging experiences at all levels.

By

Dr. Faisal AbaAlkhail


SASLT
Saudi Liver
Meeting (SLM) 2023
SLM
SASLT


SASLT
Welcome to
SLM Day 1
October 27th 2023
Riyadh Marriott Hotel


SASLT

Saudi Liver Meeting Pediatric Hepatology session

The pediatric hepatology session at the Saudi liver meeting was one of the greatest highlights of this year meeting.

The session was chaired by Dr. Khaled Nouli and Sharifa Alghamdi.

We had this year distinguished presenters delivering excellent presentations, the first topic was Acute Liver Failure Coding in Children. In his presentation, Dr. Al-Aifan summarized that Pediatric acute liver failure (PALF) is a swiftly advancing, multisystem syndrome associated with substantial morbidity and mortality. Swift identification and prompt referral to a specialized pediatric transplant center play a pivotal role in achieving better outcomes. He recommends incorporating a flag for the diagnosis code K72 in Ehalaty, triggering an immediate response from transplant centers. This proactive measure is essential for expediting the process, ensuring the safety of patients, and facilitating timely access to appropriate care, including the possibility of liver transplantation when necessary.

The second talk was Liver Transplantation for Hyperoxalurea type 1, Saudi Experience presented by Dr. Dalal Albogami, the main conclusion and key message was that Collaboration with the nephrology and renal transplant team is crucial. Transplantation strategies should be tailored to individual patients, emphasizing that liver transplantation should be performed as early as possible to prevent further organ damage and maximize postoperative recovery. Followed by that we had a lecture about Liver Transplantation for MSUD, Extending the Utilization of Domino Grafts presented by Dr. Razan Bader which elaborated in her talk the importance of the continual efforts to broaden the liver donor pool. In Saudi Arabia, the full adoption of Domino liver transplant (DLT) has not yet been achieved. DLT involves utilizing a phenotypically normal explant from specific recipients as a donor graft for another patient. Grafts from individuals with maple syrup urine disease (MSUD) prove to be suitable donor grafts for both adult and pediatric patients. Despite the favorable long-term survival outcomes associated with DLT, these allografts constitute a minimal proportion of the overall liver donor pool.

Then we had a presentation on Fibrocystic Liver Disease (New Era of Clinical Phenotype and Molecular Genotype) by both Dr. Kishwer Kumar & Dr. Sateesh Maddirevula, in this lecture Dr. Kumar covered the phenotype aspect of the presentation and elaborated that Fibrocystic liver disease is an uncommon developmental disorder resulting from ductal plate malformation, commonly referred to as ciliopathy or congenital hepatic fibrosis. It is characterized by elevated GGT cholestasis, hepatosplenomegaly, and portal hypertension.

Cilia play a crucial role in FLD, ensuring the normal functioning of cholangiocytes. The progression of congenital hepatic fibrosis is irreversible, and clinical trials involving anti-fibrotic medications have shown no significant benefits. Currently, the sole known cure for fibrocystic liver disease is through liver transplantation. Dr. Maddirevula showcased the genotype portion of the presentation and concluded that Next-generation sequencing (NGS) has been utilized

extensively in clinical settings in recent years, particularly with whole-exome sequencing (WES) to identify mutations that cause monogenic illnesses. A deeper comprehension of the connections between these illnesses can be attained by researching their clinical and genetic spectra.

The session concluded with a State-of-the-Art lecture, providing a comprehensive and up-to-date overview of

Effects of IBAT inhibition on pediatric cholestatic diseases: understanding (non-) responsiveness by Prof. Henkjan Verkade, In his lecture he concluded that the exploration of IBAT inhibition as a therapeutic strategy for pediatric cholestatic diseases represents a significant advancement in the field of hepatology. However, the variable responsiveness observed in clinical trials underscores the need for continued research to refine our understanding of this treatment modality. As we unravel the genotype-phenotype relationships and address the challenges associated with (non-)responsiveness, personalized approaches may pave the way for more effective and tailored interventions in the management of pediatric cholestatic diseases.

By

Dr. Mohammed Shagrani

The adult liver transplant update in SLM

It's great to hear that the second day of the conference continued with success and that Professor Mohammed Rela's talk on the evolution of liver transplant techniques was well-received. His insights into the recent developments in surgical liver transplant, including the use of robotic surgery and the successful transplantation of reduced grafts from adult donors into neonates, are truly impressive. These advancements are undoubtedly paving.

It was fascinating to hear about Dr. Mohammad Al Qahtani's substantial experience in conducting domino transplants and pair exchanges. These innovative strategies are crucial for expanding the living donor pool, which is essential to address the growing demand for organ transplantation and the persistent shortage of deceased donors. By maximizing the utilization of living donors, these procedures have the potential to save countless lives and improve the overall outcomes for organ transplant recipients the way for even more effective and life-saving liver transplant procedures.

It is intriguing to learn about the ongoing debate surrounding liver transplantation for obese patients. Dr. Mohammed Shaheen's informative presentation delving into the potential options supported by relevant data is undoubtedly valuable in shedding light on this complex issue. This discussion is crucial for ensuring that obese patients have equitable access to life-saving liver transplants while also considering the potential risks and complications associated with such procedures. By carefully evaluating the available evidence and weighing various factors, healthcare professionals can make informed decisions that optimize patient outcomes.

Dr. Baraa Abduljawad's presentation on the care of patients with acute liver failure and the strategies for bridging them to liver transplantation is indeed a timely and critical topic for all transplant centers. Acute liver failure is a life-threatening condition that requires prompt and specialized care. Understanding the various bridging techniques available and their potential benefits for patients awaiting liver transplantation is essential for optimizing patient outcomes.

The choice of bridging therapy depends on the patient's individual circumstances, the severity of liver failure, and the availability of liver donors. Collaboration between hepatologists, transplant surgeons, and critical care physicians is crucial for providing optimal care for patients with acute liver failure.

Dr. Abduljawad's presentation likely provided valuable insights into the latest advancements in bridging techniques and their impact on patient outcomes. This information is essential for transplant centers to refine their approaches to managing acute liver failure and ultimately improve patient survival rates.

Dr. Ibrahim Al Rajhi's presentation on transplant immunology is a significant contribution to the conference, addressing the fundamental principles of transplant immunology and their practical applications in various clinical settings, particularly in the context of organ rejection. Transplant immunology plays a pivotal role in the success of organ transplantation, as it delves into the complex immunological mechanisms that govern the body's response to transplanted organs. Understanding these mechanisms is crucial for developing effective strategies

to prevent and manage organ rejection, a major challenge in transplantation medicine, Dr. Al Rajhi's presentation likely provided valuable insights into the intricate mechanisms of transplant immunology and their clinical implications. This information is essential for healthcare professionals involved in transplantation medicine to optimize patient outcomes and improve the success of organ transplantation procedures.

It's wonderful to hear that the conference concluded with a lively and engaging discussion led by Professor Mohammed AlSebayel and Dr. Saleh AlAbbad. The audience's active participation and insightful questions demonstrate the great interest and importance of the topics covered. The extension of the discussion beyond the allotted time is a testament to the value of these exchanges and the desire to delve deeper into the complexities of liver transplantation. The subsequent lunch break provided a welcome opportunity for participants to continue their discussions and network with colleagues.

By

Dr. Hamad Al Bahili

Attitude and Practices of Hepatologist Towards MASH

Non-alcoholic fatty liver disease (NAFLD) is the most common chronic liver disease globally, with a high prevalence in the Middle East, including Saudi Arabia. The new nomenclatures for NAFLD and NASH, Metabolic Dysfunction-Associated Steatotic Liver Disease (MASLD) and Metabolic Dysfunction Associated Steato-Hepatitis (MASH) highlight the metabolic aspect of the disease, which requires coordination between various specialties.

We conducted survey during our Saudi Liver Meeting (SLM) that was held in Riyadh between 28-26 October aiming to assess the attitude and practices of Hepatologist towards MASH and its new nomenclature.

The survey consisted of eight questions done during the meeting mainly targeting hepatologists and Gastroenterologists. Out of 160 attendees, 37 participants (%23) completed the survey. The survey questions covered various aspects of MASH, including awareness of the new nomenclature, adherence to guidelines, preferred tests for diagnosis, and barriers to effective management.

Main results of the survey were as follow:

Regarding the Awareness of the new nomenclature: Out of 36 participants, 22 (%61) had read the new publication on the subject and (%19) 7 learned about it at the conference.

In regards to Perception of the new nomenclature: Out of 36 participants, 28 (%78) supported the name change because it highlights the metabolic aspect of the disease, and (%33) 12 believed it makes it easier for patients to understand.

In the matter of Adherence to guidelines: Out of 37 participants, (%54) 20 followed AASLD 2023, and (%43) 16 followed EASL guidelines.

The Barriers to following guidelines was: Out of 27 participants, (%22) 6 were not aware of MASH clinical guidelines, and (%15) 4 believed that guidelines were not updated or did not reflect best clinical practice.

In response to Preferred tests for diagnosis: Out of 37 participants, 30 (%81) frequently used FibroScan, while only (%5) 2 frequently used liver biopsy. (%19) 7 of the participants used a combination of tests.

When asked about Factors that would drive adherence to guidelines: Out of 35 participants, (%63) 22 would be driven by published evidence of success, and (%37) 13 would favor guidelines that address other comorbidities.

In regarding to Coordination of care: Out of 36 participants, (%58) 21 believed hepatologists should be the primary coordinator of care for F2-F3 patients, while (%31) 11 believed endocrinologists/diabetologists should take the lead. (%19) 7 thought that endocrinologists/diabetologists should be responsible for F2 patients while hepatologists should be responsible for F3 patients.

According to the survey the Barriers to effective management was: Out of 37 participants, the lack of approved pharmacotherapy to manage patients with NASH was the most significant barrier, with (%54) 20 votes followed by the low awareness amongst patients and primary care physicians with 18 (%49) votes.

In summary the survey results indicate that the majority of Hepatologist attending the Saudi Liver Meeting were aware of the new nomenclature for MASH and were positive about the name change. It also found that many

hepatologist followed AASLD 2023 guidelines for diagnosing and treating MASH and preferred FibroScan as a diagnostic test. However, there were barriers to following guidelines, including a lack of awareness and belief that guidelines were not updated.

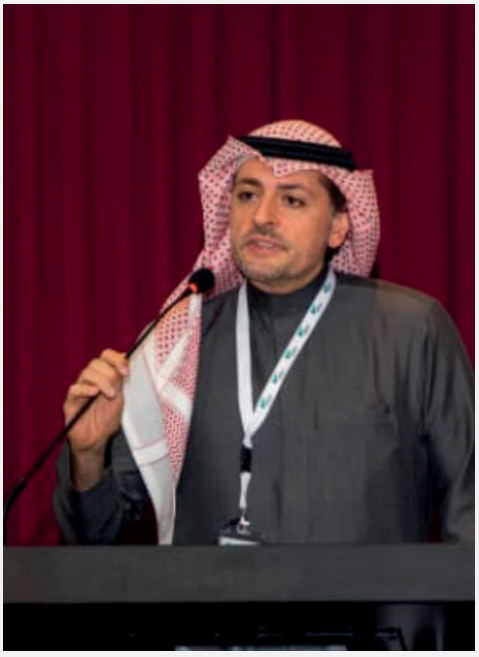
Furthermore, the survey also showed that published evidence of success would drive adherence to guidelines, indicating the importance of education and research in improving adherence. The study also found that there was a lack of agreement on the primary coordinator of care for F2-F3 patients, indicating the need for multidisciplinary collaboration.

As shown in these outcomes, the lack of approved pharmacotherapy to manage patients with NASH was the most significant barrier to effective management. This finding highlights the need for further research and development of effective treatments for MASH.

The findings indicate that there is a need for increased awareness and education about MASH guidelines, as well as multidisciplinary collaboration in the management of patients with MASH. The study also highlights the need for further research and development of effective treatments for MASH.

By

Dr. Faisal AbaAlkhail



SASLT Excellence Award 2023

Saudi Society for the Study of Liver Disease and Transplantation gives every year during the annual meeting an excellence award to a deserving accomplished Physician or surgeon honoring them for outstanding contribution and distinguished work in the field of liver disease and transplantation.

This year, we awarded three of our pioneer colleagues who have shown exemplary work in terms of research, education and outstanding dedication to patients and the community. Their contribution is extraordinary and made great impact in the field of hepatology and liver transplantation.

Our first excellence award recipient was Prof. Ayman Abdo. He is an accomplished Consultant Gastroenterologist and Hepatologist currently working as the Chief Executive Officer & Senior Vice President of Fakeeh Care Group. He joined the Board of Directors in 2022. He is a Professor of Medicine at King Saud University's College of Medicine and Director of King Saud University's Liver Disease Research Center. He is also working as a consultant in gastroenterology and hepatology at King Khalid University Hospital.

Prof. Abdo has extensive experience in education and training. Being that he was appointed as vice dean of the college of medicine for graduate studies and scientific research at Umm Al-Qura University in 2016 – 2013 and head of Academic Affairs at King Saud University's College of Medicine and its Vice-Dean for Quality and Development (2008 to 2012).

He has been also appointed as the former Secretary- General of the Saudi Commission for Health Specialties (SCFHS) from 2022 – 2016.

Professor Abdo has been a member of many national boards namely, National Education and Training Evaluation Commission, Saudi Patient Safety Center, Saudi Public Health Authority and Saudi Medical Council. He was also the founding member of two distinguished societies the Pan-Arab Liver Transplant Society and the Saudi Society for Study of the Liver and Transplantation (SASLT). He was also the Treasurer and a Board Member of the Saudi Gastroenterology Association (SGA) and was the Editor-in-Chief of the Saudi Journal of Gastroenterology.

The second SASLT excellence awardee is Prof. Waleed AlHamoudi, Professor of Medicine and Consultant Gastroenterologist & Hepatologist at King Saud University, Riyadh. He is also working as a Consultant Transplant Hepatologist at the Liver and Small Bowel Health Center in King Faisal Specialist Hospital and Research Center, Riyadh.

He is appointed as the Deputy Director and a Directive Board Member for the Liver Disease Research Center at King Saud University. He is an active member of Saudi Center for Organ Transplantation.
Prof. AlHamoud has been a member of several editorial boards such as Journal of Gastroenterology and Hepatobiliary Disorders, Clinical and Molecular Hepatology, SM Journal of Case reports, Austin Journal of Gastroenterology and World Journal of Hepatology. He published more than a hundred of publications and abstracts.
In 2014 Prof. AlHamoudi received Best Doctor award in Multi organ transplant department at King Faisal specialist hospital and then awarded as Best Teacher in Advanced Hepatology and Liver Transplant Fellowship program at King Saud University in 2015.

Finally, the third SASLT excellence award was granted to Dr. Adel AlQutub, Consultant Transplant Hepatologist at King Fahad Medical City. He was recently appointed as the Director of Patient Safety & Risk Management Administration in addition to his post as the chairman of KFMC Mortality & Morbidity Committee and Patients Safety Committee.
He is an Assistant professor of Medicine at King Saud BinAbdulaziz University for Health Sciences and Princess Noura University.
Dr. AlQutub has been appointed in the past as Director of Applied Clinical Research Administration, Chairman of Research Administration, Chairman of Medical Specialty department, Section head for Gastroenterology and Hepatology, Program Director for Residency Training Program in Internal Medicine at King Fahad Medical City.
Dr. AlQutub is an active board member of the Saudi Society for the Study of Liver Diseases and Transplantation (SASLT) where he was also formerly appointed as the Vice President and treasurer.

By

Dr. Nasser Almasri

SASLT future scientific events

To Have Saudi Society With AHealthy Liver

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Saudi Society for the Study of Liver Disease and Transplantation

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