

3<sup>rd</sup> Edition of  
GLOBAL  
Congress on  
Advances in  
Gastroenterology  
and Hepatology

**JULY 11-12, 2022**

**PARIS, FRANCE**

**Theme**

" Latest scientific advances in  
gastrointestinal research, treatment  
and clinical practice management. "

2

DAYS WITH MORE THAN  
45 SESSIONS,  
KEYNOTES & TALKS

12+

INNOVATIVE FEATURED  
SPEAKERS

20+

HOURS OF  
NETWORKING EVENTS

60+

INTERNATIONAL  
SPEAKERS

125+

EDUCATIONAL SESSIONS

**GASTRO-HEPATO 2022**

<https://gastroenterology.peersalleyconferences.com/>



Gastroenterologists | Hepatologists | Colorectal Surgeons | Primary Care Physicians | Nurse Practitioners | Clinical Researchers & Scientists | Physician Assistants | Public Health Professionals | Pathologists | Medical Practitioners | Professors and Students | Researchers | Hospitals | Medical Health Care Organizations & Associations | Pharma & Biotech Industries

# PRESENTATION FORUM

## KEYNOTE FORUM / MINI-PLENARY SESSIONS

Presentations under Keynote Forum or Mini-Plenary Sessions includes abstracts with remarkable research value selected by the program committee. These significant speeches are delivered by globally recognized honorable speakers and it is open to all registrants.

## DISTINGUISHED SPEAKERS FORUM (ORAL ABSTRACT SESSIONS)

In this forum, speakers and experts of the research field gets an opportunity to showcase their noble research work that involves comprehensive research findings. These formal oral presentations include a wide range of talks covering basic research to advanced research findings in accordance to the theme and scientific sessions of the conference.

## STUDENT FORUM

### POSTER SESSION

This session is particularly introduced to encourage more number of student participation at international conferences, however it is not restricted only to students since it is also available for the participants with language barrier. There are specific guidelines to be followed to prepare the poster. Poster topic should be selected only from relevant scientific sessions with in-depth technical details.

## YOUNG INVESTIGATORS FORUM

An exclusive opportunity for students and young investigators to present their research work through a formal oral presentation. Young Investigators Forum provides a global platform for young researchers and scholars to showcase their valuable contribution to the scientific world and to get acknowledged by the global scientific community of experts. It is an excellent opportunity to recognize young scientific assets with promising research ideas. These oral presentations are of shorter time duration with 10-15 minutes of informative and precise presentations in relevant scientific sessions.

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## **EDUCATIONAL WORKSHOPS/RESEARCH WORKSHOPS/ CORPORATE WORKSHOPS/MINI- SYMPOSIA**

With an aim of transferring knowledge among the participants, workshops are introduced as a part of international conferences. These interactive and occasionally practical sessions gives an opportunity for participants to engage in detail discussion. Workshops are mostly scheduled for 60 to 90-minutes. It may range from learning about a specific topic relevant to international education, products and research which sometimes involves practical demonstration. It helps in enhancing skills, knowledge and understanding of the research field in depth through interactive discussions.

## **MEET THE PROFESSOR @ NETWORKING SESSIONS**

This session involves open discussion between the experts and session attendees, it gives enough time for getting answers to specific questions and doubts. It is an opportunity for attendees to increase their professional networking, sometimes also leads to an excellent collaboration opportunity.

## **HIGHLIGHTS OF THE DAY SESSIONS**

“Highlights of the Day Sessions” is introduced to discuss and focus a ray upon previous day ORAL ABSTRACT presentations by experts to summarise the key findings. It helps in getting better insights into the various dimensions of the topic.

## **EDUCATIONAL SESSIONS/ TRAINING PROGRAMS**

Educational Sessions or training programs are specifically designed for a better understanding of the latest findings and technologies. These are generally 45-minute sessions that gives an exposure to the multidisciplinary field, that provides in-depth learning experiences and address educational needs.

## **SCIENTIFIC TRACKS/ SESSIONS**

Clinical Gastroenterology | Gastroenterology Treatment | Advances in Gastroenterology | Gallbladder and Biliary Disease | Gastrointestinal Complications in Pregnancy | Gastrointestinal Disorders | Gastrointestinal Pathology | Gastrointestinal Pharmacotherapy | Gastrointestinal Cancer | Gastrointestinal Radiology | Gastrointestinal Surgery | Inflammatory Bowel Disease | Pediatric Gastroenterology | Pancreatic and Biliary Disease | Bariatric Surgery | Colorectal Oncology | Endoscopy and Hepatology | Esophageal and Gastric Disease | Pancreatic Diseases | Gastro Esophageal Reflux Disease | Gastrointestinal Immunology | Digestive Diseases | Liver Diseases | Gastroenterologist | Celiac Disease | Hepatitis B | Barrett's Esophagus | Crohn's Disease | Cirrhosis | Hepatitis C | Liver & Intestine Transplant | Kidney & Pancreas Transplant | Peptic Ulcer Disease | GI Bleeding | GI Infectious Disease | Gastroenterologists

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# REGISTER & PARTICIPATE

in

GASTRO-HEPATO 2022

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## TYPES OF ACADEMIC REGISTRATIONS

SPEAKER REGISTRATION

COMBO A

(REGISTRATION + 2 NIGHT ACCOMMODATION)

COMBO B

(REGISTRATION + 3 NIGHT ACCOMMODATION)

DELEGATE REGISTRATION

## TYPES OF BUSINESS REGISTRATIONS

SPEAKER REGISTRATION

COMBO A

(REGISTRATION + 2 NIGHT ACCOMMODATION)

COMBO B

(REGISTRATION + 3 NIGHT ACCOMMODATION)

DELEGATE REGISTRATION

## TYPES OF STUDENT REGISTRATIONS

REGISTRATION

41F

COMBO A

(REGISTRATION + 2 NIGHT ACCOMMODATION)

COMBO B

(REGISTRATION + 3 NIGHT ACCOMMODATION)

POSTERS

## TYPES OF ADDITIONAL REGISTRATIONS

ACCOMPANYING PERSON

E-POSTER

VIRTUAL PRESENTATION

WORKSHOPS

START-UPS

“ TIME TO  
CONNECT  
WITH YOUR  
PEERS ”

# CONCURRENT EDUCATIONAL SESSIONS

**MONDAY**  
**JULY 11**  
**2022**

## CLINICAL GASTROENTEROLOGY

- Gastritis
- Gastroenteritis
- Gastric Ulcers
- Gastroschisis
- Implantable Gastric Stimulation
- Imaging and Scanning

## GASTROENTEROLOGY TREATMENT

- Cytoscopy
- Capsule Endoscope
- Bronchoscopy
- Diverticulitis
- Endoscopy
- Anoscopy and Laparoscopy
- Double balloon Endoscopy

## ADVANCES IN GASTROENTEROLOGY

- Abdominal Imaging
- Ablation Therapies
- Gastrointestinal Transplantation
- Hepatic Lesions
- HELLIP Syndrome

## GALLBLADDER AND BILIARY DISEASE

- Gallbladder Cancer
- Gall stones
- Fecal Incontinence
- Biliary tract Diseases
- Bovine viral Diarrhea.
- Fluminant Hepatitis

## GROUP PHOTO | COFFEE BREAK

### GASTROINTESTINAL COMPLICATIONS IN PREGNANCY

- Gynoscopia
- Intra Hepatic Cholestasis of Pregnancy
- Multi visceral Transplant
- Ulcerative Colitis
- Hepatitis in Pregnancy
- Hyperemesis Gravidarum

### GASTROINTESTINAL DISORDERS

- Intestinal Diseases
- Intestinal Obstruction
- Intra gastric Ballon
- Adjustable Gastric band
- Obesity
- Inflammation

### GASTROINTESTINAL PATHOLOGY

- Biopsy Pathology
- Inflammatory Bowel Disease
- Histomorphologic Patterns
- Barrett's Esophagus
- Colorectal Cancer

### GASTROINTESTINAL PHARMACOTHERAPY

- Hepato biliary Diseases
- Therapy of Pancreatic Diseases
- Inflammatory Bowl Diseases
- Prokinetic Agents
- Gastro Duodenal Mucosal Protection

## LUNCH BREAK

### GASTROINTESTINAL CANCER

- Esophageal Cancer
- Gastric Cancer
- Pancreatic Cancer
- Hepatocellular Carcinoma
- Gastrointestinal Carcinoid Tumor
- Anal Cancer
- Gallbladder Cancer

### GASTROINTESTINAL RADIOLOGY

- Barium Enema with air Contrast
- Barium Enema
- Dynamic Pelvic MRI
- CT Colonography (Virtual Colonoscopy)
- Herniography
- Intravenous Pyelogram
- Evacuation Proctogram (Defecography)

### GASTROINTESTINAL SURGERY

- Appendicitis
- Colon Cancer
- Gastrointestinal Cancer
- Rectal Prolapse
- Bleeding and Blood clots
- Minimally Invasive Surgery

### INFLAMMATORY BOWEL DISEASE

- Ulcerative Colitis
- Crohn's Disease
- Abdominal Pain and Cramping
- Race or Ethnicity
- Primary Sclerosing Cholangitis
- Fistulas

## COFFEE BREAK

### PEDIATRIC GASTROENTEROLOGY & NUTRITION

- Pediatric Diabetes
- Peptic Ulcers
- Peristaltic Reflex
- Portal Hypertension
- Portal Vein Embolization

### PALLIATIVE GASTROENTEROLOGY

- Endoscopic Imaging
- Intestinal Obstruction
- Celiac Plexus Neurolysis
- Opioid Analgesics
- Analgesic Drug

### PANCREATIC AND BILIARY DISEASE

- Pancreas Divisum
- Pancreas Transplant
- Pancreatic Cancer
- Pancreatitis
- Biliar tract Diseases
- Bilio Pancreatic Diversion

### BARIATRIC SURGERY

- Laparoscopic Adjustable Gastric Banding (LAGB)
- Gastric Balloon
- Gastric bypass-Roux-en-Y Gastric bypass
- Gastric sleeve- Vertical Sleeve Gastrectomy
- High Cholesterol Levels

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# CONCURRENT EDUCATIONAL SESSIONS

**TUESDAY**  
**JULY 12**  
**2022**

## COLORECTAL ONCOLOGY

- Diarrhea or Constipation
- Fatigue or Tiredness
- Chemotherapy
- Radiation Therapy
- Stool DNA Test
- Flexible Sigmoidoscopy

## ENDOSCOPY & HEPATOLOGY

- Laparoscopy
- Amnioscopy
- Endoscopic Spinal surgery
- Viral Hepatitis
- Gastrointestinal Bleeding

## ESOPHAGEAL AND GASTRIC DISEASE

- Gardner's Syndrome
- Dentigerous Cysts
- Sideropenic Dysphagia
- Hamartoma
- Echocardiography

## PANCREATIC DISEASES

- Pancreatitis
- Diabetes mellitus
- Cystic Fibrosis
- Exocrine Pancreatic Insufficiency
- Pseudocysts
- Neoplasms

## GROUP PHOTO | COFFEE BREAK

### GASTROESOPHAGEAL REFLUX MALADY

- Esophageal Manometry
- Esophageal Adenocarcinoma
- Heart Palpitations
- Dumping Syndrome
- Hiatal Hernia

### GASTROINTESTINAL IMMUNOLOGY

- Proctology
- Transplant Rejection
- Phagocytosis
- Receptor-Mediated Endocytosis
- Peripheral Tolerance

### BARRETT'S ESOPHAGUS

- Diagnosis and Screening
- Treatment and Prognosis
- GERD
- Epidemiology
- Barrett's Esophagus Metaplasia
- Epithelial Dysplasia

### CROHN'S DISEASE

- Screening and Diagnosis
- Treatment and Management
- Ileocolitis
- Gastroduodenal Crohn's
- Jejunoileitis
- Crohn's Granulomatous
- Crohn's Disease Pathophysiology
- Inflammatory Bowel Disease

## LUNCH BREAK

### CIRRHOSIS

- Diagnosis and Treatment
- Prevention and Prognosis
- Stages of Liver Cirrhosis
- Types of Liver Cirrhosis
- Compensated Cirrhosis
- Decompensated Cirrhosis

### HEPATITIS C

- Hepatitis Vaccine
- Hepatitis C Virus
- Hepatitis and HIV
- Hepatitis C Complications
- Prevention and Cure
- Alternative Medicine

### LIVER & INTESTINE TRANSPLANT

- Types of Organ Donors
- Causes of Chronic Liver Injury
- Transplant risk and Complications
- Operative Techniques in Intestinal Transplants
- MELD Score
- Transplantation Cost
- Multivisceral Transplantation
- Intestinal Failure

### KIDNEY & PANCREAS TRANSPLANT

- Chronic Kidney Disease
- Deceased-Donor Kidney Transplant
- Living-Donor Kidney Transplant
- Preemptive Kidney Transplant
- Kidney Transplant Cost and Success Rate
- Diabetes Mellitus
- Glomerulonephritis
- Polycystic Kidney Disease
- Types of Pancreas Transplant

## COFFEE BREAK

### PEPTIC ULCER DISEASE

- Anatomy and Pathophysiology
- Diagnosis and Treatment
- Helicobacter Pylori (H. pylori)
- Gastric Ulcers
- Duodenal Ulcers

### GI BLEEDING

- Upper GI Bleeding
- Lower GI Bleed
- Gastritis
- Iron Deficiency
- Typhoid Fever
- GI bleeding Diagnosis and Treatment
- Prognosis and Epidemiology

### GI INFECTIOUS DISEASE

- Bacterial Gastrointestinal Infections
- Viral Gastrointestinal Infections
- Parasitic Gastrointestinal Infections
- Stomach Flu
- Enteric Fever
- Acute Self-Limited Colitis
- Mycobacterial Infections of the GI Tract
- Fungal Infections of the GI Tract
- Parasitic Infections of the GI Tract

### GASTROENTEROLOGISTS

- Gastroenterologist Training
- Gastroenterologist Scope and Opportunities
- Hepatologists
- Gastrologist
- Gastro-Oncologist

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# NETWORKING...CONFERENCING...FOSTERING

ATTENDING A CONFERENCE ISN'T ALL ABOUT  
LEARNING AND NETWORKING

# DISCOVERING

A right choice of conference destination is an important aspect of any international conference and keeping that in consideration, ***Gastro-Hepato 2022*** is scheduled in the Beautiful city "Paris".



AVENUE DES CHAMPS ÉLYSÉES



BUSTLING BOULEVARDS  
AND LEGENDARY CAFÉS



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MUSÉE D'ORSAY



MUSÉE DU LOUVRE



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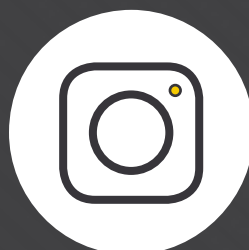
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PROCEEDINGS OF

VIRTUAL EVENT

# GLOBAL CONGRESS ON ADVANCES IN GASTROENTEROLOGY AND HEPATOLOGY

MAY 24-25  
2021

**Theme:**

The Future of Gastroenterology and Hepatology:  
New Insights in Diagnosis and Treatment

**Peers Alley Media**

1126 59 Ave East, V5X 1Y9

Vancouver BC, Canada



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# GASTRO-HEPATO 2021



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**PROGRAM-AT-A-GLANCE**

**GASTRO-HEPATO  
2021**

# DAY 1

MONDAY, MAY 24, 2021

# Scientific Program

*BST – British Summer Time*

10:00

**Title: Evaluating peer-supported screening as a hepatitis C case-finding model in prisoners**

**Graham Betts-Symonds**, Irish Red Cross/Irish Prison Service, Ireland

10:30

**Title: TORQUE TENO VIRUS (TTV) AND ITS SIGNIFICANCE FOR LIVER DISEASES**

**Burmistrov Aleksandr Igorevich**, A.I. Yevdokimov Moscow State University of Medicine and Dentistry, Russia

11:00

**Title: Interventional Algorithm in Gastrointestinal Bleeding—An Expert Consensus Multimodal Approach Based on a Multidisciplinary Team**

**Cilénia Baldaia**, Centro Hospitalar Universitário Lisboa Norte (CHULN), Portugal

11:30

**Title: Low FODMAP diet in patients with functional dyspepsia: a prospective, randomised trial**

**Omesh Goyal**, Dayanand Medical College and Hospital, India

12:00

**Title: Comparison of endoscopic and pathological findings of the upper gastrointestinal tract in transplant candidate patients undergoing hemodialysis or peritoneal dialysis treatment: a review of literature**

**Yavuz AYAR**, Bursa City Hospital, Turkey

**Lunch Break 12:30-13:00**

13:00

**Title: Zinc and Copper Status, and Copper/Zinc Ratio in a Series of Cystic Fibrosis Patients**

**Marlene Fabiola Escobedo-Monge**, University of Valladolid, Spain

13:30

**Title: The rectal cancer unit as paradigm of the tumor-specific cancer unit: The innovative healthcare model for cancer patient management in the post-pandemic era of the istituto nazionale dei tumori “fondazione pascale” - NAPOLI-IT**

**Paolo Delrio**, Istituto Nazionale dei Tumori di Napoli “Fondazione “G. Pascale”, Italy





# DAY 2

TUESDAY, MAY 25, 2021

# Scientific Program

*BST – British Summer Time*

10:00

**Title: Down-regulation of ER- $\alpha$ 36 mRNA in serum exosomes of the patients with hepatocellular carcinoma**

**Chunwen Pu**, The Affiliated Sixth People's Hospital of Dalian Medical University, China

10:30

**Title: Serum choline is associated with hepatocellular carcinoma survival: a prospective cohort study**

**Zhao-Yan Liu**, Sun Yat-sen University, China

11:00

**Title: A multi-country cross-sectional study of self-reported sexually transmitted infections among sexually active men in sub-Saharan Africa**

**Abdul-Aziz Seidu**, University of Cape Coast, Ghana

11:30

**Title: Post-Transplant Inflow Modulation for Early Allograft Dysfunction After Living Donor Liver Transplantation**

**Mohamed Elemam Elshawy**, Kyushu University, Japan

12:00

**Title: Successful outcome in acute gastric volvulus in a low resource hospital setting in Bangladesh: A case report**

**Bappy Basak**, Liverpool Heart and Chest Hospital, United Kingdom

**Lunch Break 12:30-13:30**

13:30

**Title: Results of single-stage tactics in the case of treatment of acute cholecystitis in combination with choledocholithiasis**

**Dauren Zhumatayev**, Asfendiyarov Kazakh National Medical University, Kazakhstan

14:00

**Title: Comparative study of the outcomes of the second kidney transplantation from the young deceased donors versus living-unrelated donors**

**Seyed Mohammad Kazem Aghamir**, Tehran University of Medical Sciences, Iran

14:30

**Title: Validation of Circom comorbidity score in critically-ill cirrhotic patients**

**Maged Elghannam**, Theodor Bilharz Research Institute, Egypt

15:00

**Title: Levothyroxine-induced liver injury followed by complete recovery upon cessation of the drug: A case report**

**Abbas F. Hlaihel**, University of Thi-Qar Medical college, Iraq

**End of Day 2**

**Closing Remarks**



**BOOKMARK  
YOUR DATES**

# **3<sup>rd</sup> GLOBAL CONGRESS ON ADVANCES IN GASTROENTEROLOGY AND HEPATOLOGY**

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**VIRTUALEVENT**

**GLOBAL CONGRESS ON  
ADVANCES IN  
GASTROENTEROLOGY  
AND HEPATOLOGY**

May 24-25,  
**2021**

**Scientific Abstracts**  
**Day 1**

**GASTRO-HEPATO 2021**



# GLOBAL Congress on ADVANCES IN GASTROENTEROLOGY AND HEPATOLOGY

May 24-25, 2021

## Evaluating peer-supported screening as a Hepatitis C case-finding model in prisoners

**Graham Betts-Symonds**

*Irish Red Cross/Irish Prison Service, Ireland*

**Background:** Hepatitis C Virus (HCV) infection is endemic in prison populations, and HCV management in prisons is suboptimal. Incarceration is a public health opportunity to target this cohort. Community peer support increases HCV screening and treatment uptake. Prison peer workers have the potential to support the engagement of prisoners with health services and reduce stigma. This study's primary aim is to evaluate peer-supported screening as a model of active HCV case finding with a secondary aim to describe the HCV cascade among those infected including linkage to care and treatment outcomes.

**Methods:** An observational study was conducted in a medium-security Irish male prison housing 538 inmates, using a risk-based questionnaire, medical records, peer-supported screening, laboratory-based HCV serology tests and mobile elastography.

**Results:** A prison peer-supported screening initiative engaged large numbers of prisoners in HCV screening ( $n = 419$ ). The mean age of participants was 32.8 years, 92% were Irish and 33% had a history of injecting drug use. Multiple risk factors for HCV acquisition were identified including needle sharing (16%). On serological testing, 87 (21%) were HCV Ab +ve and 50 (12%) were HCV RNA +ve of whom 80% were fibroscanned (25% showing evidence of liver disease). Eighty-six percent of those with active infection were linked with HCV care, with 33% undergoing or completing treatment. There was a high concordance with HCV disclosure at committal and serological testing (96% for HCV Ab +ve and 89% for HCV Ab -ve).

**Conclusion:** Peer-supported screening is an effective active HCV case-finding model to find and link prisoners with untreated active HCV infection to HCV care.

### Biography

Graham Betts-Symonds is Programme Director for the Community Based Health in Justice Programme serving all Irish Prisons and Director of the Global Reference Centre for Community Based Health in Detention working with the ICRC and IFRC Geneva. Graham has worked with the Hepatology Teams of the Mater Hospital Dublin, UCD and HepCare Europe project in this mass screening project and previously with St. James Hospital GUIDE Clinic for mass HIV testing in Irish Prisons in 2015 leading to high uptake of testing. He has worked with the International Red Cross in the fields of health, disaster preparedness and risk reduction in over forty countries over the last thirty years to build local community resilience for health and disaster risks through community capacity building.

## TORQUE TENO VIRUS (TTV) AND ITS SIGNIFICANCE FOR LIVER DISEASES

**A.I. Burmistrov<sup>1</sup>, I.A. Chekmazov<sup>2</sup>, T.I. Karlovich<sup>2</sup>,  
I.V. Maev<sup>1</sup> and V.I. Reshetnyak<sup>1</sup>**

<sup>1</sup>A.I. Yevdokimov Moscow State University of Medicine and Dentistry, Russia,

<sup>2</sup>Central Clinical Hospital with Polyclinic, Presidential Administration of the Russian Federation, Russia

**Aim of study:** Analysis of literature data on Torque Teno Virus (TTV) and liver diseases.

**Key points:** Torque Teno Virus (TTV) was discovered by Japanese researchers in 1997. TT-virus particles are spherical, devoid of a capsid; virus DNA is single-stranded, ring-shaped, with negative polarity. The prevalence of the virus in the population is high: TTV DNA is found in 46-100% of the healthy population. TTV has several transmission routes: fecal-oral, parenteral, sexual, and transplacental.

The question of the tropism of the virus up to the present time remains controversial. It has been established that TTV replication can occur in the liver, bone marrow, lungs, lymphoid tissue, and peripheral blood mononuclear cells. TTV is often found in patients with liver diseases, including patients with acute viral hepatitis (15-28%). There are a number of studies that show frequent detection of the virus in patients with hepatitis of known etiology compared to healthy donors. The results of the work of JC de Oliveira *et al.*

indicate a predominance of the frequency of TTV detection in patients with elevated levels of hepatic aminotransferases (in the absence of hepatitis viral markers) in comparison with blood donors.

In some cases, morphological changes in the liver tissue are observed in patients who are monoinfected with TTV. These changes include: lymphocytic infiltration of portal tracts, focal necrosis, hepatocyte dystrophy of varying severity, as well as single necrosis and desquamation of epithelial cells in the bile ducts.

**Conclusion:** The original paradigm of potential hepatotropism of TTV has undergone some significant changes. In recent years, the consideration of TTV as an endogenous marker of the body's immune status has come to the fore. Therefore, the use of TTV levels in blood plasma can be a useful tool for predicting the development of graft rejection after organ transplantation.

### Biography

Burmistrov Aleksandr Igorevich – 5th year student of the Medical faculty of the A.I. Yevdokimov Moscow State University of Medicine and Dentistry.

## Interventional algorithm in gastrointestinal bleeding—An expert consensus multimodal approach based on a multidisciplinary team

Cilénia Baldaia<sup>1</sup>, Anabela Rodrigues<sup>2</sup>, Alexandre Carrilho<sup>3</sup>, Nuno Almeida<sup>4</sup>, Ângela Alves<sup>5</sup>, Manuela Gomes<sup>6</sup>, Luciana Gonçalves<sup>7</sup>, António Robalo Nunes<sup>8</sup>, Carla Leal Pereira<sup>2</sup>, Mário Jorge Silva<sup>9</sup>, José Aguiar<sup>10</sup>, Rosário Orfão<sup>11</sup>, Pedro Duarte<sup>9</sup> and Rui Tato Marinho<sup>1</sup>

<sup>1</sup>Gastroenterology Department, Hospital Santa Maria, Centro Hospitalar Universitário Lisboa Norte (CHULN), Lisbon, Portugal

<sup>2</sup>Transfusion Medicine Department, Hospital Santa Maria, Portugal

<sup>3</sup>Anesthesiology Department, Hospital São José, Centro Hospitalar Universitário de Lisboa Central (CHULC), Lisbon, Portugal

<sup>4</sup>Gastroenterology Department, Centro Hospitalar Universitário de Coimbra (CHUC), Portugal

<sup>5</sup>Anesthesiology Department, Hospital Santa Maria, Portugal

<sup>6</sup>Transfusion Medicine Department, Hemovida, Portugal

<sup>7</sup>Transfusion Medicine Department, Centro Hospitalar Universitário de São João, Portugal

<sup>8</sup>Transfusion Medicine Department, Hospital das Forças Armadas, Portugal

<sup>9</sup>Gastroenterology Department, Hospital Santo António dos Capuchos, Portugal

<sup>10</sup>Anesthesiology Department, Hospital Lusíadas, Portugal

<sup>11</sup>Anesthesiology Department, Portugal

**Background:** Gastrointestinal bleeding (GIB) is a common medical emergency worldwide. At initiation management of comorbidities can impact on clinical outcomes and not all clinical scenarios are pictured in guidelines. So optimal management with multimodal and multidisciplinary approaches is essential.

**Aim:** Development of a series of interventional algorithms that enable an easy and practical approach for GIB management based on a multimodal and multidisciplinary approach.

**Methods:** Fourteen advisors divided into 3 working area: five-transfusion medicine, four-anesthesiology and five-gastroenterology gathered to issue a global and personalized approach statement for GIB management. A

comprehensive literature review, based on available published data, was conducted on PubMed database using GIB related keywords. Based on retrieved evidence, each working group independently developed the corresponding algorithms, which were reviewed, and approved by all authors.

**Results:** Seven algorithms were developed. The first describes the multidisciplinary approach in the initial management focusing on the clinical presentation, past medical and drug history, definition of severe GIB, immediate evaluation, and clinical stabilization. The second algorithm describes the management of aggravating factors in GIB, namely patient's comorbidities, and previous therapy. The third, and fourth algorithms describes the management of pre,



# GLOBAL Congress on **ADVANCES IN GASTROENTEROLOGY AND HEPATOLOGY**

May 24-25, 2021

**Theme:** The Future of  
Gastroenterology and Hepatology:  
New Insights in Diagnosis and  
Treatment

peri and early post upper gastrointestinal endoscopy for GIB caused by variceal and non-variceal upper and lower GIB, including severity scores, endoscopy timings, endoscopic stigma of bleeding and therapeutic alternatives if rebleeding. The fifth and sixth algorithms describes the same factors for lower GIB. An algorithm for overt GIB and special cases is also presented. The last focus on management

of coagulopathy in GIB, a need in all phases of patient care, describing triggers, diagnostic criteria of coagulopathy and targets for treatment according to severity, and persistence of GIB.

**Conclusions:** Increasing complexity of GIB management due to patient's increasing age, complexity of comorbidities and treatments, makes a multidisciplinary approach warranted.

## **Biography**

MD, Consultant Gastroenterology and Hepatology.

# GLOBAL Congress on ADVANCES IN GASTROENTEROLOGY AND HEPATOLOGY

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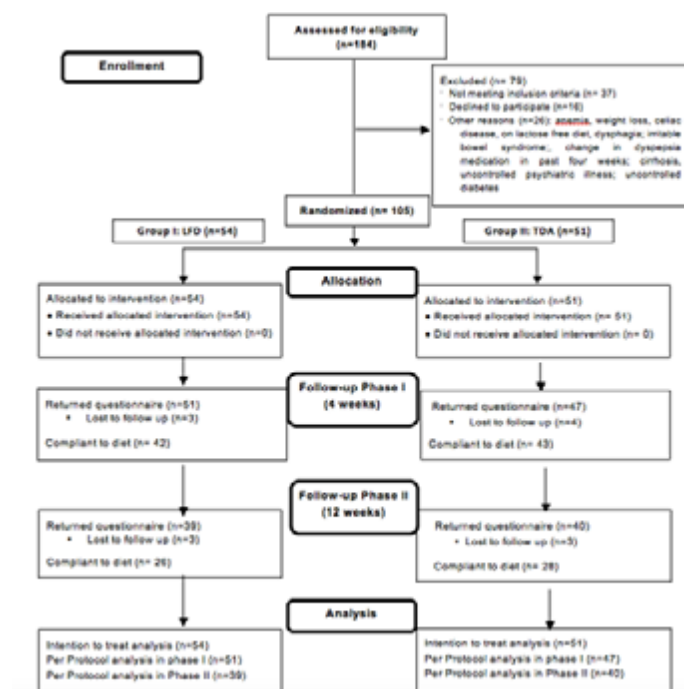
## Low FODMAP diet in patients with functional dyspepsia: a prospective, randomised trial

**O. Goyal, S. Nohria, S. Batta, A.S. Dhaliwal,  
P. Goyal and A. Sood**

*Dayanand Medical College and Hospital, India*

**Background and Objectives:** Dyspepsia and food have a diverse and complex association. Fermentable oligosaccharides, disaccharides, monosaccharides, and polyols (FODMAP) - containing foods have been implicated in causing functional dyspepsia (FD) symptoms. However, prospective studies evaluating specific dietary restrictions in FD are scarce. We aimed to assess the efficacy of low FODMAP diet (LFD) in patients with FD.

**Methods:** This prospective randomized trial, included patients with FD (Rome IV). In phase I (0 to 4 weeks), patients were randomised to LFD and traditional dietary advise (TDA) groups. In phase II (4 - 12 weeks), LFD group was advised systematic re-introduction of FODMAPs ('modified' FODMAP diet). 'Short-Form Nepean Dyspepsia Index' was used to assess symptom severity and quality of life (QoL). Response was defined as symptom score reduction  $\geq 50\%$  of baseline.



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 Gastroenterology and Hepatology:  
 New Insights in Diagnosis and  
 Treatment

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# GLOBAL Congress on ADVANCES IN GASTROENTEROLOGY AND HEPATOLOGY

May 24-25, 2021

**Results:** Of the total 184 patients with FD screened, 105 (mean age  $37.6 \pm 11.9$  years, 59% males) were randomized to LFD (n=54) and TDA (n=51) groups (figure 1). By ITT, proportion of responders at 4 weeks in LFD and TDA group were 66.7% (36/54) and 56.9% (29/51) respectively ( $p=0.322$ ); and at 12 weeks were 46.3% (25/54) and 41.2% (21/51) respectively ( $p=0.531$ ). Sub-group analysis revealed significantly better symptomatic response with LFD among patients with post-prandial distress syndrome (PDS) and among patients with bloating. SF-NDI QoL scores improved

significantly in both groups. Compliance to LFD was 77.7% at 4 weeks and 61.9% at 12 weeks. In LFD group, energy, carbohydrate, fat and fiber intake showed significant reduction at 4 weeks, but improved till 12 weeks.

**Conclusions:** LFD leads to better symptomatic relief and QoL improvement in FD patients, compared to TDA; and this improvement is significantly better in patients with PDS or bloating. Therefore, dietary modification (LFD or TDA) should be first line therapy for FD patients, individualized according to the sub-type of FD.

## Biography

Dr. Omesh Goyal is presently working as an Associate Professor in the Department of Gastroenterology at a tertiary care academic institute in northern India. He has a professional, academic and research experience of more than 10 years. Till date, he has 50 publications (35 Pubmed/Medline indexed), four chapters in books, presented 41 papers in international/national conferences, delivered lectures at national forums and won prestigious awards. He has keen interest in research on 'Disorders of Gut-Brain Interaction', and has been instrumental in setting up of 'GI Motility lab' in this Institute (including Manometry, Colonic Transit Time study, Breath testing etc.). He is the Governing Council Member of 'Indian Motility and Functional Disease Association'.

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May 24-25, 2021

## Comparison of endoscopic and pathological findings of the upper gastrointestinal tract in transplant candidate patients undergoing hemodialysis or peritoneal dialysis treatment: a review of literature

Yavuz AYAR<sup>1</sup>, Mehmet USTA<sup>1</sup>, Alparslan ERSOY<sup>2</sup>,  
Gökhan OCAKOĞLU<sup>3</sup>, Bilgehan YUZBASIOGLU<sup>4</sup>,  
Emrullah Düzgün ERDEM<sup>4</sup> and Omer ERDOGAN<sup>5</sup>

<sup>1</sup>Turkey City Hospital, Nephrology Clinic, Turkey

<sup>2</sup>Turkey Uludag University Faculty of Medicine, Department of Internal Medicine, Division of Nephrology, Turkey

<sup>3</sup>Turkey City Hospital, Department of Biostatistics, Turkey

<sup>4</sup>Turkey Uludag University Faculty of Medicine, Gastroenterology Clinic, Turkey

<sup>5</sup>Turkey City Hospital, Pathology, Turkey

**Background and Aims:** Dyspepsia is a common disorder in kidney transplant recipients, and the risk of post-transplant complications is increased in candidates with upper gastrointestinal disease. We evaluated gastrointestinal lesions of kidney transplant candidates on dialysis.

**Method:** In this study, endoscopic and pathological findings in hemodialysis (HD) and peritoneal dialysis (PD) patients with gastrointestinal symptoms on the waiting list were compared.

**Results:** The most common non-ulcerous lesions in the endoscopic examination were gastritis (62.3%), erosive gastritis (38.7%), duodenal erosion or duodenitis (18.9%) and esophagitis (13.2%). The ulcerous lesion was present in only 3 patients.

Gastroesophageal reflux disease, ulcerated lesion and non-ulcerated lesion rates were similar in both dialysis groups. Histopathological examination revealed *Helicobacter pylori* (HP) positivity in 28.3% of patients. HP positivity

rate was significantly higher in PD patients than in HD patients (38.7% vs. 13.6%,  $p = 0.046$ ). Chronic gastritis (75.5%) was the most common pathological finding. HP positivity rate was 37.5% in patients with chronic gastritis, but HP was negative in patients without chronic gastritis. In multivariate analysis, male gender, urea and albumin levels were associated with the presence of pathological chronic gastritis. The presence of gastritis, total cholesterol and ferritin levels were found significant for HP positivity. A total cholesterol  $> 243$  mg/dL was significantly related to an increased risk of the presence of HP positivity.

**Conclusion:** Gastrointestinal lesions and HP infection are common in dialysis patients. Dialysis modality may affect the frequency of some lesions. It may be useful to have an endoscopic examination before entering the transplant waiting list for all candidates.

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New Insights in Diagnosis and  
Treatment

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# GLOBAL Congress on **ADVANCES IN GASTROENTEROLOGY AND HEPATOLOGY**

May 24-25, 2021

## **Biography**

### EDUCATIONAL INFORMATION:

1996-2002: Kocaeli University Faculty of Medicine

2007-2011: Taksim Training and Research Hospital 2nd Internal Medicine Clinic (Internal Medicine Expertise)

2013-2016: Uludağ University Faculty of Medicine Nephrology Expertise.

### WORK EXPERIENCE:

January 2003-July 2007: Düzce Çilimli Health Center (General practitioner, duty of state service)

June 2004-June 2005: Military service, İzmir

November 2011-April 2013: Bayburt State Hospital (Internal Medicine Specialist, duty of state service)

August 2016- August 2018: Şırnak State Hospital (Nephrology and Internal Medicine Specialist, duty of state service)

August 2018- July 2019: Turkey State Hospital (Nephrology and Internal Medicine Specialist)

July 2019-...: Turkey City Hospital (Nephrology and Internal Medicine Specialist, Internal Medicine Clinic Training Supervisor)

Associate Professor: (18.09.2019-...) Nephrology

## Zinc and copper status, and copper/zinc ratio in a series of cystic fibrosis patients

**Marlene Fabiola Escobedo-Monge<sup>1</sup>, Enrique Barrado<sup>2</sup>,  
Carmen Alonso Vicente<sup>3</sup>, María Antonieta Escobedo-  
Monge<sup>4</sup>, María Carmen Torres-Hinojal<sup>1</sup>, María Paz  
Redondo del Río<sup>1</sup> and José Manuel Marugán-Miguelsanz<sup>3</sup>**

<sup>1</sup>Faculty of Medicine, University of Valladolid, Spain

<sup>2</sup>Department of Analytical Chemistry, University of Valladolid, Spain

<sup>3</sup>Department of Pediatrics of the Faculty of Medicine, Valladolid University, University Clinical Hospital of Valladolid, Spain

<sup>4</sup>Department of Chemistry, University of Burgos, Spain

**Background:** Cystic fibrosis (CF) patients require a stable and sufficient supply of micronutrients. Zinc (Zn) and copper (Cu) are essential micronutrients for human development.

**Objective:** A cross-sectional study was carried out to investigate the nutritional status of zinc using serum zinc concentration (SZC) and dietary zinc intake, and serum copper levels, serum Cu/Zn ratios and their relationship with nutritional indicators. in a group of CF patients.

**Methods:** Anthropometric, biochemical, dietary measurements, abdominal ultrasound, and respiratory and pancreatic tests were performed. Serum zinc and copper levels were measured by atomic absorption spectrophotometry and dietary zinc intake by prospective 72-hour dietary surveys including one of the weekend days.

**Results:** Seventeen CF patients (10 women, 59%) were studied, 76.5% of whom were

ΔF580. Mean SZC (87 µg/dL), serum copper (113 µg/dL), and dietary zinc intake (97% of Reference Dietary Intake) were normal. A significant association was found between serum Cu and Zn levels. There was only one adolescent with hypocupremia (6%) and two children with hypercupremia (18%). Three of the 17 CF patients (17.6%) had hypozincemia and four (23.5%) had dietary zinc deficiency. No patient with dietary zinc deficiency had hypozincemia. This situation should alert us to a marginal zinc deficiency and may explain why there were no overlapping cases between the two groups, suggesting that probably 41% of the cases in this study were at elevated risk of zinc deficiency. Furthermore, the fact that 94% of CF cases have a Cu/Zn ratio > 1.00, an indicator of the state of inflammation, should alert us to consider the risk of zinc deficiency. Conclusion: Measurement of serum zinc alone may not show one's zinc status. However, the Cu/Zn ratio can be an indicator of zinc deficiency and inflammatory status in CF patients.



# GLOBAL Congress on **ADVANCES IN GASTROENTEROLOGY AND HEPATOLOGY**

May 24-25, 2021

**Theme:** The Future of  
Gastroenterology and Hepatology:  
New Insights in Diagnosis and  
Treatment

## **Biography**

Marlene is a paediatrician and a Doctor of Medicine, a researcher at the Faculty of Medicine of the University of Valladolid. She has a doctorate in "Health Sciences Research", two master's degrees, one in "Clinical Nutrition" and the other in "Biological Aspects of Nutrition". She is very interested in food security and food biofortification and especially in the research studies that are being carried out on micronutrients, especially zinc and copper, their bioavailability; without forgetting the interrelation between both and other macro and micronutrients of the food chain. Furthermore, as part of a research team, we are primarily concerned with the nutritional status of patients with malnutrition and chronic diseases.

# GLOBAL Congress on ADVANCES IN GASTROENTEROLOGY AND HEPATOLOGY

May 24-25, 2021

## The rectal cancer unit as paradigm of the tumor-specific cancer unit: The innovative healthcare model for cancer patient management in the post-pandemic era of the istituto nazionale dei tumori "fondazione pascale" - NAPOLI-IT

**P. Delrio<sup>1</sup> and A. Avallone<sup>2</sup>**

<sup>1</sup>Colorectal Surgical Oncology

<sup>2</sup>Abdominal Medical Oncology, Istituto Nazionale dei Tumori di Napoli  
"Fondazione "G. Pascale", Italy

**H**ealthcare models must evolve faster in-line with the Covid-19 pandemic, digital transformation: a new and innovative organizational structure. Despite the challenging time the "Fondazione G. Pascale", the main cancer center in Campania, has maintained its mission to meet the mentioned 'triple aim'. We had been and now more than ever, committed to improve patient clinical outcomes and satisfaction, by efficiently allocating resources and moving the organization to a new model, combining clinical and translational research needs.

This model is a value-based ecosystem integrated with digital solutions and has created the possibility to closely align the needs of patient care with those of multi-stakeholders. This approach facilitates patient access, information, engagement and care, considering external factors as well. This is crucial not only in the setting of the patient management, but also in creating the appropriate condition

for the enrollment in clinical studies. We are continuously focused on elevating the standard of care, looking at the entire patient pathway from prevention and diagnosis to treatment and follow up. We also stressed the importance of building a strong connection between the hospital, the general practitioners, and the patients, to achieve a true continuity of care. This would improve both patient's and caregiver's experience and satisfaction and also reduces misleading practices. To deliver the 'best in class' care, the functional model of "Tumor Specific Cancer Units" was introduced and the Rectal unit is a clear example. The model aims to boost patient pathway, standardize clinical and surgical approach and facilitate communication between all medical staff; faster and more accurate decision making and elevated level of care with improving outcomes are expected. The delivery value chain is the base of our analysis system that could be applicable to other neoplasia such as colorectal, liver or head & neck cancer.

### Biography

Paolo Delrio, MD (1988, University Federico II, Naples)

Postgraduate degree in General Surgery (1993, University Federico II - Naples)

Endocrine Surgery (1998, University Federico II - Naples)

Long experience in surgical oncology, minimally invasive surgical approaches (both laparoscopic and robotic) in colorectal cancer, surgical integrated treatment of peritoneal neoplasms and sarcomas. Peer reviewer of several surgical journals. H-index 25.

## Erythropoietin in animal models of inflammation

**I. Silva<sup>1,2</sup>, C. Alípio<sup>1</sup>, R. Pinto<sup>2,3</sup> and V. Mateus<sup>1,2</sup>**

<sup>1</sup>H&TRC–Health and Technology Research Center, ESTeSL–Lisbon School of Health and Technology, Instituto Politécnico de Lisboa, Portugal

<sup>2</sup>iMed.Ulissboa, Faculdade de Farmácia, Universidade de Lisboa, Portugal

<sup>3</sup>JCS, Dr. Joaquim Chaves, Laboratório de Análises Clínicas, Portugal

**BACKGROUND:** Erythropoietin binds to erythropoietin receptor to promote proliferation and differentiation of red blood cells. This hypoxia-induced hormone is produced in adult kidney with erythropoietic and non-erythropoietic effects. Since current anti-inflammatory therapies are not totally safe, erythropoietin emerges as a new pharmacological approach reverting the mechanism of inflammation with apparently lower toxicity. **AIM:** Evaluate the potential anti-inflammatory effect of erythropoietin observed in animal models of inflammatory disease.

**METHODS:** A systematic review was performed following PRISMA statements in the electronic database MEDLINE via PubMed platform. The inclusion criteria were: (1) original articles; (2) studies in animal models where erythropoietin was administered; (3) studies where inflammation was studied and/or evaluated; (4) non-clinical studies in vivo with rodents;

and (5) articles published in English.

**RESULTS:** A total of 36 articles met criteria for qualitative analysis. Exogenous erythropoietin was used in models of sepsis, traumatic brain injury, and autoimmune neuritis with anti-inflammatory effect. The average dose of exogenous erythropoietin was 3000 IU/kg of weight. Erythropoietin was associated with a significant reduction of biomarkers such as immune-related effectors, cytokines, reactive oxygen species, and prostaglandins. Erythropoietin analogues, such as ARA290 or carbamylated erythropoietin, have the crucial advantage to promote the anti-inflammatory effect without the thromboembolic risk by the proliferation of red blood cells.

**CONCLUSION:** Erythropoietin is recognized as a multifunctional cytokine with anti-inflammatory properties, showing its significant effect both in acute and chronic murine models of inflammation.

### Biography

Inês Filipa Janeiro da Silva, PhD student of Doctor in Pharmacy, specialty of pharmacology and pharmacotherapy, is member of Health and Technology Research Center (H&TRC). Expertise in animal model of inflammatory bowel disease in rodents. Lecturer of Pharmacology, Pharmacotherapy and Toxicology, in Lisbon School of Health Technology of Polytechnic Institute of Lisbon (ESTeSL-IPL). Bachelor in Pharmacy, in ESTeSL-IPL, and Master in Palliative Care, in Medicine Faculty, University of Lisbon.

# GLOBAL Congress on ADVANCES IN GASTROENTEROLOGY AND HEPATOLOGY

May 24-25, 2021



## Is there seasonal variation in gallstone related admissions in England?

**Adnan Taib<sup>1,2</sup>, Rebecca Killick<sup>3</sup>, Kamran Hussain<sup>1,2</sup>,  
Harun Patel<sup>4</sup> and Mohd Rami Obeidallah<sup>1,2</sup>**

<sup>1</sup>Department of General Surgery, East Lancashire Hospitals NHS Trusts, UK

<sup>2</sup>Blackburn Research Innovation Development Group in General Surgery, UK

<sup>3</sup>Department of Mathematics and Statistics, Lancaster University, UK

<sup>4</sup>Divisional Analyst, East Lancashire Hospitals NHS Trusts, UK

**Background:** Gallstone related pathology (GRP) accounts for a significant proportion of general surgery admissions. The aim of this study is to investigate if seasonal variation for GRP admissions exist in England allowing improved resource allocation and planning.

**Methods:** This multicentre retrospective cohort study included only emergency adult ( $\geq 18$  years old) admissions to acute secondary care with ICD-10 codes associated with gallstones between 01/01/2010 to 31/12/2019 in England using Hospital Episode Statistics data. Seasons were defined according to United Kingdom Met Office.

**Results:** A total of 396 879 GRP related admissions were recorded during the specified

period, accounting for 1.44% of all emergency admissions. Our study suggests a significant seasonal peak in Summer ( $n=102\ 620$ ) based cumulative admissions per season and a linear regression model ( $p<0.001$ ), followed by Autumn ( $n=102\ 267$ ), then Spring ( $n=97\ 807$ ) and finally Winter ( $n=94\ 185$ ). Spectral analysis confirmed there is seasonality in the emergency GRP admissions every 12 months. A forecasting model was shown to be reliable; all observed admissions for 2019 were within the 95% prediction intervals for each month for the proportion of emergency GRP admissions.

**Discussion:** Resource allocation towards the Summer months to target seasonal peaks in GRP should be considered.

## Biography

I am a higher surgical trainee based in the North West of England, Manchester. I completed my undergraduate training at the University of Nottingham where I acquired a competitive academic foundation programme post. This furthered my interest in surgery and research leading to publications, numerous presentations, various leadership and teaching roles. I am currently the Manchester Medical Society Section of Surgery Trainee Representative. I have a particular interest in laparoscopic and colorectal surgery.

# GLOBAL Congress on ADVANCES IN GASTROENTEROLOGY AND HEPATOLOGY

May 24-25, 2021

## Efficacy and toxicity of CD147-CAR- NK for hepatocellular carcinoma treatment

**Dongfang Liu<sup>1,8</sup>, Hsiang-chi Tseng<sup>1</sup>, Wei Xiong<sup>1,2</sup>,  
Saiaditya Badeti<sup>1</sup>, Yan Yang<sup>1</sup>, Minh Ma<sup>1</sup>, Carlos A.  
Ramos<sup>3</sup>, Gianpietro Dotti<sup>4</sup>, Luke Fritzky<sup>5</sup>, Qing Yi<sup>2</sup>,  
James Guarrera<sup>6</sup>, Wei-Xing Zong<sup>7</sup> and Chen Liu<sup>1</sup>**

<sup>1</sup>Department of Pathology, Immunology and Laboratory Medicine, Rutgers University- New Jersey Medical School, USA

<sup>2</sup>Center for Translational Research in Hematologic Malignancies, Houston Methodist Research Institute, USA

<sup>3</sup>Department of Medicine, Baylor College of Medicine, USA

<sup>4</sup>Department of Microbiology and Immunology and Lineberger Comprehensive Cancer Center, University of North Carolina, USA

<sup>5</sup>Imaging core facility, Rutgers University-New Jersey Medical School, USA

<sup>6</sup>Department of Surgery, New Jersey Medical School, Rutgers-The State University of New Jersey, USA

<sup>7</sup>School of Pharmacy, Rutgers-The State University of New Jersey, USA

<sup>8</sup>Center for Immunity and Inflammation, New Jersey Medical School, Rutgers-The State University of New Jersey, USA

**R**ecent clinical trials testing cancer immunotherapies have shown promising results for the treatment of various cancers. One such therapy involves engineering immune cells to express chimeric antigen receptors (CAR), which combine tumor antigen specificity with immune cell activation in a single receptor. The adoptive transfer of these CAR-modified immune cells (especially T cells, CAR T) into patients has shown remarkable success in treating multiple refractory blood cancers. However, in order to achieve the promise of CAR-modified immune cells in treating solid tumor cancers, further advances will be required. One key challenge is identifying a safe and effective solid tumor antigen. Here, we devise a strategy for targeting hepatocellular carcinoma (HCC, one of the

deadliest malignancies). We report that T and NK cells transduced with a CAR that recognizes the surface marker, CD147, also known as Basigin (BSG) or extracellular matrix metalloproteinase inducer (EMMPRIN), can effectively kill various malignant HCC cell lines *in vitro*, and HCC tumors in xenograft and patient-derived xenograft mouse models. To minimize any on-target/off-tumor toxicity, we use logic-gated (log) GPC3-synNotch-inducible CD147-CAR to target HCC. LogCD147-CAR selectively kills dual antigen (GPC3+CD147+), but not single antigen (GPC3-CD147+) positive HCC cells and does not cause severe on-target/off-tumor toxicity in a human CD147 transgenic mouse model. In conclusion, these findings support the therapeutic potential of CD147-CAR-modified immune cells (including T and NK cells) for HCC patients. The results of

**Theme:** The Future of  
Gastroenterology and Hepatology:  
New Insights in Diagnosis and  
Treatment

**VIRTUALEVENT**

# GLOBAL Congress on **ADVANCES IN GASTROENTEROLOGY AND HEPATOLOGY**

May 24-25, 2021

these studies will also streamline the path to clinical trials of logCD147-CAR-T or-NK cells for adoptive cell therapy for the treatment of HCC.

This study could be translated to the treatment of other CD147 positive solid tumor cancers as well in the future.

## **Biography**

Dongfang Liu, PhD, an associate professor and director of immunoassay development program at the Department of Pathology and Laboratory Medicine in Rutgers University. In 2012, Dr. Liu was recruited to Baylor College of Medicine as a tenure-track Assistant Professor in the Department of Pediatrics, and Pathology & Immunology, before joining Houston Methodist Research Institute (HMRI) as an assistant professor in 2015. In 2018, Dr. Liu was promoted to an Associate Professor in HMRI. Dr. Liu did his postdoctoral training on natural killer (NK) cells at the NIAID in National Institutes of Health (NIH) from 2005 to 2011. After completing the postdoctoral training, he joined Ragon Institute of MGH, MIT and Harvard in 2011 as a senior research scientist, where he worked on HIV-specific CTL dysfunction with a focus on PD-1 in HIV-specific CTL immunological synapse. Dr. Liu's current research is primarily focused on the immunobiology of chimeric antigen receptor (CAR) T and NK cells, immunoreceptors, CAR immunotherapy, and HIV-specific CTLs in chronic HIV and its related malignancies, with a focus on immunological synapse biology and its clinical applications.



# GLOBAL Congress on ADVANCES IN GASTROENTEROLOGY AND HEPATOLOGY

May 24-25, 2021

## Nutrition essentials for the practicing gastroenterologist in coronavirus-19

**Gerard E. Mullin**

*Johns Hopkins University School of Medicine, USA*

**C**COVID-19 a highly contagious infectious disease that can rapidly escalate to respiratory failure and death. COVID-19 has infected millions of people worldwide. The trajectory of disease continues to progress in certain regions of the US and worldwide and the world is presently experiencing a 4th surge of COVID-19. The pathogenesis of COVID-19 illness includes an inflammatory phase with either resolution or acceleration to a cytokine storm, characterized by high interleukin (IL)-6 and other inflammatory markers. COVID-19 is a condition without a gold-standard treatment. The US Federal Drug Administration issued an emergency use

authorization for remdesivir in severe cases of COVID-19, which shortened the recovery time in hospitalized patients with lower respiratory tract infection in one study. There remains a dearth of interventions for acute illness. Dietary supplement sales have dramatically risen during the COVID-19 pandemic despite depressed economic conditions. Commonly used immune-modulating dietary supplements (vitamin D, ascorbic acid, zinc, and selenium) are reviewed in this lecture highlighting biological plausibility for providing benefit against COVID-19. Ongoing clinical trials in the US and worldwide that are recruiting subjects at the time of this writing are provided for each dietary supplement.

### Biography

Dr. Mullin is an internist, gastroenterologist and nutritionist. Dr. Mullin is nationally and internationally renowned for his work in gastroenterology and nutrition. Mullin has accumulated over 30 years of clinical experience in the field of integrative gastroenterology and earned his master's degree in nutrition while in practice. In 2009 he was named by the American Dietetic Association's as an honorary member. Dr. Mullin has authored/edited several books in nutrition. He has been interviewed on radio and television and has contributed to many stories in print and electronic media.

## **Bile acid hydrophobicity shift and liver damage in mice and its implications for human liver diseases**

**Renxue Wang<sup>1</sup>, Liu Teng<sup>2</sup>, Jun Han<sup>3</sup>, Jonathan A. Sheps<sup>1</sup>, Lin Liu<sup>1</sup>, Jian-She Wang<sup>2</sup> and Victor Ling<sup>1,4</sup>**

<sup>1</sup>BC Cancer Research Centre, Canada

<sup>2</sup>Department of Pediatrics, The Center for Pediatric Liver Diseases, Children's Hospital of Fudan University, China

<sup>3</sup>University of Victoria–Genome BC Proteomics Centre, University of Victoria, Canada

<sup>4</sup>Department of Pathology, University of British Columbia Vancouver, Canada

**P**rogressive familial intrahepatic cholestasis type 2 (PFIC2) and type 3 (PFIC3) are severe liver diseases associated with defects in the bile salt export pump (BSEP, ABCB11) and phosphatidylcholine transporter MDR3 (ABCB4), respectively. Bsep<sup>-/-</sup> mice display only mild cholestasis with a very hydrophilic bile acid (BA) pool, but Mdr2<sup>-/-</sup> mice (a PFIC3 model) exhibit severe progressive liver damage due to the biliary toxicity of non-micelle-bound BAs. We generated Bsep<sup>-/-</sup> and Mdr2<sup>-/-</sup> double knockout (DKO) mice to test whether the highly hydrophilic BAs generated by the Bsep<sup>-/-</sup> mutation could rescue the severe Mdr2<sup>-/-</sup> liver phenotype. The DKO BA composition resembles that of Bsep<sup>-/-</sup>, but not Mdr2<sup>-/-</sup> mice, as did their pathophysiology and gene expression profiles. We concluded that hydrophilic shift of BAs, including production of tetrahydroxylated BAs (THBA), can prevent the progressive liver pathology associated with Mdr2<sup>-/-</sup>

/-(PFIC3) defect in DKO mice.

In human patients, we asked if BA profiles could be used to monitor the effectiveness of partial internal biliary diversion (PIBD) in three PFIC2 children. Before PIBD, all three patients presented with > 50-fold elevated total BA, and unchanged secondary BAs, compared to healthy controls. After PIBD, one patient showed relief of cholestasis, with a BA profile shift toward that of healthy controls, and a 5-fold reduction of total plasma primary BAs. However, the secondary BAs, DCA and LCA, increased 26- and 12-fold, respectively, consistent with direct drainage into the colon, and elevated conversion to secondary BAs by the gut microbiome. One year later, the responder suffered a recurrence, months after the BA profile shifted had back to a pre-PIBD-like profile. In this study, the BA hydrophobicity shift appears to predict disease recurrence. Plasma BA profiles may be used for monitoring the clinical course in patients who have undergone PIBD.

### **Biography**

Dr. Wang obtained his BSc degree majored in marine biology from the Ocean University of China, Qingdao. He got his Ph.D degree on developmental biology from the Chinese Academy of Sciences, Qingdao, China. Dr. Wang has been working on various research areas of biology including genetics, population genetics, developmental biology, neurology and bioinformatics. For the last 25 years, his research focus has been on the role of the bile salt export pump (BSEP) and related proteins in bile formation. He has generated a number of animal models for studying bile acid transport and bile formation. He has contributed for better understanding the role of bile acids in health and disease. His works have been published as major authors in scientific journals including Proc Natl Acad Sci USA, Hepatology, Biochemistry, Heredity, and Journal of Evolutionary Biology.

# GLOBAL Congress on ADVANCES IN GASTROENTEROLOGY AND HEPATOLOGY

May 24-25, 2021

## Experiences and outcomes using direct-acting antiviral Hepatitis-C treatment in older veterans

**Tapasya Raavi**

*The Carle Foundation Hospital, USA*

**BACKGROUND:** Historically, older adults have been excluded from trials evaluating hepatitis C virus (HCV) treatment, in part, due to the adverse effects associated with previous regimens. Veterans are at high risk of HCV infection. Ledipasvir/sofosbuvir (LED/SOF) is a once daily antiviral regimen with demonstrated efficacy and tolerability among the younger population. Our objective was to examine the tolerability and efficacy of LED/SOF in Veterans age  $\geq 65$  years versus those  $< 65$  years who were treated at the Atlanta VA Health Care System (AVAHCS).

**METHODS:** Using the VA Clinical Case Registry, all persons who filled a LED/SOF prescription at the AVAHCS from January 1, 2015, through March 31st, 2016, were identified. The electronic medical records were reviewed to identify basic demographic information; comorbidities; polypharmacy; and outcomes (e.g. virologic cure). Virologic cure was defined as an

undetectable HCV RNA, at least 12 weeks after completing treatment. Descriptive statistics were employed using SAS v9.2.

**RESULTS:** We identified 345 Veterans who filled LED/SOF during the study period; 94 were excluded due to exposure to ribavirin and IFN containing regimens; 97 (38.6%) were  $\geq 65$  years. Veterans were predominantly black (57%) and male (97%). Cancer was more prevalent among older Veterans ( $P = 0.047$ ) as was polypharmacy ( $P = 0.001$ ). Treatment completion rates between older and younger Veterans were not significantly different (99 vs 95%, respectively;  $P = 0.16$ ), more older Veterans achieved virologic cure (98 vs 91%;  $P = 0.03$ ).

**CONCLUSIONS:** We found LED/SOF to be a well-tolerated and efficacious regimen in an older Veteran population despite multiple comorbidities and increased polypharmacy.

### Biography

Dr. Tapasya Raavi, MD is an internist in Urbana, Illinois. He is currently licensed to practice medicine in Illinois. He is affiliated with Carle Foundation Hospital.

# GLOBAL Congress on ADVANCES IN GASTROENTEROLOGY AND HEPATOLOGY

May 24-25, 2021

**Theme:** The Future of  
Gastroenterology and Hepatology:  
New Insights in Diagnosis and  
Treatment

## Eosinophilic gastrointestinal responses during Peanut Oral Immunotherapy in a phase 2 randomized controlled trial

**R. Sharon Chinthrajah**

*Stanford University, Sean N. Parker Center for Allergy and  
Asthma Research, United States*

**Rationale:** Gastrointestinal side effects are common during oral immunotherapy (OIT) and the development of eosinophilic esophagitis (EoE) is a potential complication. In a randomized controlled trial involving peanut OIT, we characterized eosinophilic gastrointestinal responses over time.

**Methods:** Twenty adult subjects with peanut allergy were randomized to peanut OIT (n=15) and placebo (n=5). Serial gastrointestinal biopsies were obtained at baseline (0 weeks), following dose escalation (n=10, 52 weeks), and maintenance (n=12, 104 weeks, n = 4 at 117 weeks). Endoscopic findings were characterized using the EoE endoscopic reference score (EREFS). Biopsies were assessed for eosinophils per high-power field (eos/hpf) and other pathologic features using EoE Histologic Scoring System (EoEHSS). Immunohistochemical staining for eosinophil peroxidase (EPX) was performed and quantified using automated image analysis.

**Results:** At baseline, no subjects reported gastrointestinal symptoms; however, 3 participants had  $\geq 15$  eos/hpf (esophagus) and all subjects had dilated intercellular spaces. OIT induced significant eosinophilic inflammation at 52 weeks in the proximal, middle, and distal esophagus; whereas no significant changes were seen in the placebo arm. These changes corresponded with significant increases in EoEHSS scores and EPX deposition. Four subjects (57%) had new-onset or worsening eosinophilia ( $\geq 15$  eos/hpf) during OIT and one met clinicopathologic criteria for EoE. Three OIT subjects (43%) also crossed histologic thresholds for eosinophilic gastritis and/or duodenitis. In most, OIT-induced gastrointestinal eosinophilia (GE) resolved by the end of maintenance therapy and symptoms were not clearly associated with GE.

**Conclusions:** Our findings show that peanut OIT induces transient GE, and less commonly EoE, that is not always associated with gastrointestinal symptoms.

### Biography

Dr. Chinthrajah joined the Sean N. Parker Center for Allergy & Asthma Research at Stanford in August 2013 and established herself as a translational researcher investigating immune mechanisms in food allergy and asthma under the mentorship of Dr. Kari Nadeau. She is the Director of the Clinical Translational Research Unit of the Sean N Parker Center for Allergy and Asthma Research where she leads the team to conduct novel and impactful Phase 1-3 studies in food allergy, asthma, allergic rhinitis, and atopic dermatitis. Dr. Chinthrajah received her MD from Drexel University College of Medicine, completed her Internal Medicine training and a chief residency at California Pacific Medical Center, and subspecialized in Pulmonary/Critical Care and Allergy/Immunology at Boston Medical Center.



# GLOBAL Congress on ADVANCES IN GASTROENTEROLOGY AND HEPATOLOGY

May 24-25, 2021

**Theme:** The Future of  
Gastroenterology and Hepatology:  
New Insights in Diagnosis and  
Treatment

## Risk of hepatitis B reactivation and cytomegalovirus related infections with Mogamulizumab: A retrospective study of international pharmacovigilance database

Shuai Wang<sup>1</sup>, Apoorva  
Jayarangaiah<sup>2</sup>, Mariuxi Malone<sup>2</sup>,  
Tarek Elrafei<sup>2</sup>, Lewis Steinberg<sup>2</sup>  
and Abhishek Kumar<sup>2</sup>

<sup>1</sup>Department of Internal Medicine, Albert Einstein College of Medicine/ Jacobi Medical Center, United States

<sup>2</sup>Department of Hematology-Oncology, Albert Einstein College of Medicine/ Jacobi Medical Center, United States

**Background:** Mogamulizumab (Moga) is a C-C chemokine receptor-4 antibody approved in the United States for relapsed /refractory mycosis fungoides and Sézary syndrome. Few cases reported an increased risk of hepatitis B reactivation and cytomegalovirus (CMV) related infection post-Moga. However, literature is limited to mainly case reports and series, while no study has used the Food and Drug Administration adverse events reporting system (FARES) database to investigate the relationship.

**Methods:** Using United States Food and Drug Administration adverse events reporting system database, we collected all cases of hepatitis B reactivation and CMV related infection between January 1, 2011, and December 31, 2019, for Moga and other drugs. The reporting odds ratio (ROR) was calculated, which was considered significant when the lower limit of 95% confidence interval (CI) >1.

**Results:** Three hundred and thirty-eight total

adverse cases were reported for Moga during the study period, with 261 cases reported indication for use, including cutaneous T cell lymphoma (47.04%), and adult T cell leukemia/lymphoma (30.18%). Eight cases were reported for hepatitis B reactivation with Moga use, compared to 2290 cases with other medications. The ROR is 143.67 (p<0.001, 95% CI, 71.17-290.04). CMV related infection was noted in 17 cases using Moga, while 12849 cases with others. The ROR is 55.89 (p<0.001, 95% CI, 34.31-91.06). In the Moga group, five deaths occurred in hepatitis B reactivation patients and nine deaths with CMV cases.

**Conclusion:** A signal has been identified between Moga exposure and hepatitis B reactivation as well as CMV related infection. A consideration in future studies should be placed on determining the relationship and investigating the need for pre-treatment screening, close monitoring, and utilization of prophylaxis in this population-based on pre-treatment risks.

## Biography

**Shuai Wang, MD** received her medical degree and master of medicine degree in Soochow University Medical College, China. She is currently an internal medicine resident at Jacobi Medical Center/ Albert Einstein College of Medicine, Bronx, New York program.

**Abhishek Kumar, MD** received his medical degree from University of Delhi, Maulana Azad Medical College, India. He completed his residency in internal medicine from Mount Sinai School of Medicine, NY followed by fellowship in Hematology and Medical oncology from Seton Hall University and New York Medical College, NY. He is currently an Assistant Professor at Albert Einstein School of Medicine and attending physician at Jacobi medical Center.

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## **Down-regulation of ER- $\alpha$ 36 mRNA in serum exosomes of the patients with hepatocellular carcinoma**

**H. Huang<sup>1</sup>, Z.Z. Zhou<sup>2</sup>, H.Y. Li<sup>2</sup>, Y. Zhang<sup>1</sup>, L. Zhao<sup>1</sup>, Z.D. Wang<sup>1</sup>, Q.Q. Zhang<sup>1</sup>, C.Y. Liu<sup>1</sup>, C.X. Han<sup>1</sup>, Q. Wang<sup>2</sup>, C.W. Pu<sup>1</sup> and W. Zou<sup>2</sup>**

<sup>1</sup>Department of Biobank, The Affiliated Sixth People's Hospital of Dalian Medical University, China

<sup>2</sup>College of Life Science, Liaoning Normal University, China

**Background:** Estrogen and its receptors are involved in the progression of breast cancer, but their expression pattern and clinical significance in the serum exosomes of hepatocellular carcinoma (HCC) are not known.

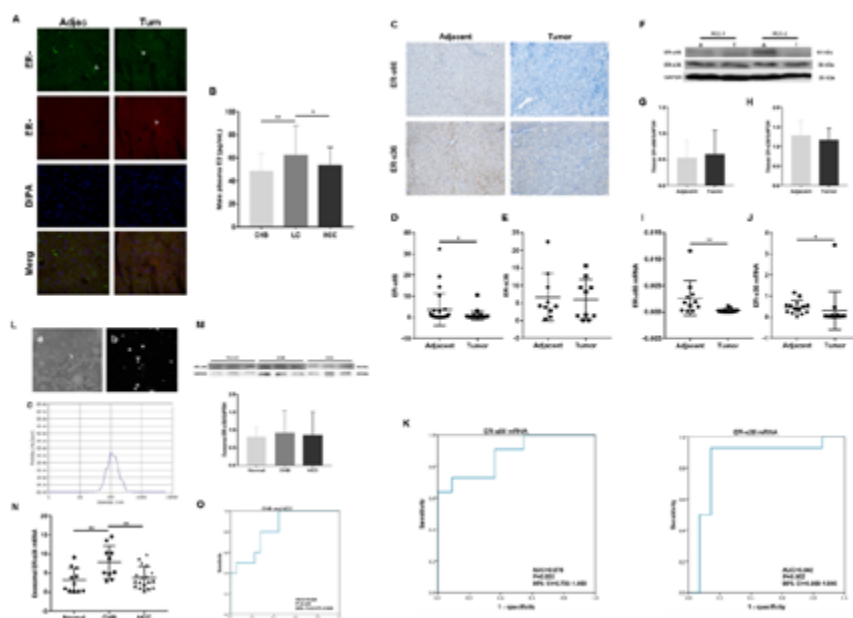
**Aim and Methods:** We examined the difference of estrogen concentration in human plasma and levels of estrogen receptor variants (ER- $\alpha$ 36 and ER- $\alpha$ 66) in tissues and serum exosomes between patients with HCC and normal subjects. 17 $\beta$ -estradiol (E2) in plasma was examined using chemiluminescence method. Immunohistochemistry (IHC) and immunofluorescence (IF) were performed in HCC and adjacent normal tissues. The expression levels of ER- $\alpha$ 36 and ER- $\alpha$ 66 in exosomes was assessed using western blot and quantitative real-time PCR (qRT-PCR).

**Results:** Plasma estrogen levels were found to be significantly elevated in LC patients compared with that in chronic hepatitis B (CHB) patients, and significantly lower in the HCC patients compared with the liver cirrhosis (LC) patients ( $P < 0.05$ ). ER- $\alpha$ 66 and ER- $\alpha$ 36

were expressed in the cytoplasm and the cell membrane of cells and which expression was down-regulated in the HCC tissues compared with the adjacent tissues, with ER- $\alpha$ 66 expression being more significantly down-regulated ( $P < 0.05$ ). ER- $\alpha$ 36 was significantly down-regulated in serum exosomes of patients with HCC ( $P < 0.01$ ). The ROC curve showed that ER- $\alpha$ 36 mRNA in exosomes could effectively distinguish patients with CHB and HCC (AUC=0.828,  $P = 0.005$ , 95% CI=0.675-0.980).

**Conclusion:** ER- $\alpha$ 36 was present in exosomes of patients with HCC and which mRNA in exosomes was significantly down-regulated in HCC patients, suggesting that ER- $\alpha$ 36 mRNA in serum exosomes may serve as a good diagnostic biomarker for HCC.





**FIGURE1:** The expression of estrogen and estrogen receptor variants (ER- $\alpha$ 66 and ER- $\alpha$ 36) in hepatocellular carcinoma (HCC). (A) IF staining of ER- $\alpha$ 66 and ER- $\alpha$ 36 in HCC and adjacent tissue. ER- $\alpha$ 66 and ER- $\alpha$ 36 were expressed in the cytoplasm and cell membrane ( $\times 400$ ). (B) Expression of estrogen in HCC. Male, chronic hepatitis B (CHB) ( $47.98 \pm 15.76$ ,  $n=55$ ), liver cirrhosis (LC) (decompensated,  $62.14 \pm 26.06$ ,  $n=56$ ) and HCC ( $53.32 \pm 15.72$ ,  $n=56$ ) patients with plasma E2 levels ( $*P < 0.05$ ,  $**P < 0.01$ ). ER- $\alpha$ 66 and ER- $\alpha$ 36 were down-regulated in hepatocellular carcinoma (HCC) tissue. (C) IHC staining of ER- $\alpha$ 66 and ER- $\alpha$ 36 in HCC and adjacent tissue. ER- $\alpha$ 66 and ER- $\alpha$ 36 were located in the cytoplasm and cell membrane ( $\times 400$ ). (D)(E) IHC quantification of ER- $\alpha$ 66 (Adjacent:  $3.62 \pm 7.57$  and Tumor:  $0.74 \pm 2.12$ ,  $n=26$ ) and ER- $\alpha$ 36 (Adjacent:  $6.69 \pm 6.75$  and Tumor:  $5.94 \pm 5.73$ ,  $n=10$ ) in HCC and adjacent tissue. (F) Western blot results of ER- $\alpha$ 66 and ER- $\alpha$ 36 in HCC and adjacent tissue. (G) (H) Western blot quantification of ER- $\alpha$ 66 (Adjacent:  $0.53 \pm 0.33$  and Tumor:  $0.60 \pm 0.47$ ,  $n=6$ ) and ER- $\alpha$ 36 (Adjacent:  $1.27 \pm 0.40$  and Tumor:  $1.16 \pm 0.30$ ,  $n=6$ ) in HCC and adjacent tissue. (I)(J) QRT-PCR results of ER- $\alpha$ 66 (Adjacent:  $0.0026 \pm 0.0033$  and Tumor:  $0.0003 \pm 0.0003$ ,  $n=11$ ) and ER- $\alpha$ 36 (Adjacent:  $0.4700 \pm 0.3180$  and Tumor:  $0.3058 \pm 0.9045$ ,  $n=14$ ) in HCC and adjacent tissue ( $*P < 0.05$ ,  $**P < 0.01$ ). (K) Diagnostic efficiency of ER- $\alpha$ 66 and ER- $\alpha$ 36 mRNA for HCC. (a) ROC curves of ER- $\alpha$ 66 mRNA. (b) ROC curves of ER- $\alpha$ 36 mRNA. ER- $\alpha$ 36 mRNA in exosome was significantly down-regulated in hepatocellular carcinoma (HCC) patients. (L) Identification and characterization of serum exosomes in patients with HCC. (a) Transmission electron micrograph of purified exosome (30-110 nm in diameter) (bars 100 nm). Arrow represented exosome. (b) Morphology of exosome by ZetaView. (c) Particle size and distribution of exosome by ZetaView. (M) Western blot quantification of ER- $\alpha$ 36 in serum exosome of normal subjects ( $0.80 \pm 0.28$ ,  $n=6$ ), patients with chronic hepatitis B (CHB) ( $0.90 \pm 0.64$ ,  $n=6$ ) and HCC ( $0.85 \pm 0.66$ ,  $n=6$ ). (N) QRT-PCR result of ER- $\alpha$ 36 in serum exosome of normal subjects ( $3.09 \pm 3.18$ ,  $n=11$ ), patients with CHB ( $7.84 \pm 4.23$ ,  $n=10$ ) and HCC ( $3.79 \pm 2.86$ ,  $n=18$ ) ( $**P < 0.01$ ). (O) ROC Curve Analysis of ER- $\alpha$ 36 mRNA in exosome of patients with CHB and HCC.

## Biography

Chunwen Pu is a chief physician, medical postdoctoral fellow, master tutor, and the director of the Biobank department of Dalian Sixth People's Hospital. She is currently an editorial board member of several journals and has published more than forty papers, including fifteen SCI papers, with a total impact factor of 62.189. She participated in the completion of major national special projects, presided over the national post-doctoral grant, several Dalian Science and Technology Bureau grants, and the Liaoning Provincial Science and Technology Department fund. She has made certain achievements in the field of natural science research, won many awards such as the Liaoning Provincial Science and Technology Progress Award, and declared an invention patent. She has played a key role in the verification of new clinical diagnosis and treatment methods and the discovery of biomarkers.

# GLOBAL Congress on ADVANCES IN GASTROENTEROLOGY AND HEPATOLOGY

May 24-25, 2021

## Serum choline is associated with hepatocellular carcinoma survival: A prospective cohort study

Zhao-Yan Liu<sup>1</sup>, Dinuerguli Yishake<sup>1</sup>, Ai-Ping Fang<sup>1</sup>,  
Dao-Ming Zhang<sup>1</sup>, Gong-Cheng Liao<sup>1</sup>, Xu-Ying Tan<sup>1</sup>,  
Yao-Jun Zhang<sup>2</sup> and Hui-Lian Zhu<sup>1</sup>

<sup>1</sup>Guangdong Provincial Key Laboratory of Food, Nutrition and Health, School of Public Health, Sun Yat-sen University, China

<sup>2</sup>Department of Hepatobiliary Surgery, Sun Yat-sen University Cancer Center, China

**Background:** Higher choline and betaine levels have been linked to lower risk of liver cancer, whereas existing data in relation to hepatocellular carcinoma (HCC) prognosis are scarce. Our objective was to examine the associations of the serum choline and betaine with HCC survival.

**Methods:** 866 newly diagnosed HCC patients were enrolled in the Guangdong Liver Cancer Cohort. Serum choline and betaine were assessed using high-performance liquid chromatography with online electro-spray ionization tandem mass spectrometry. Liver cancer-specific survival (LCSS) and overall survival (OS) were calculated. Cox proportional hazards models were used to estimate the hazard ratios (HRs) and 95% confidence intervals (CIs).

**Results:** Serum choline levels were associated

with better LCSS (T3 vs. T1: HR=0.69, 95% CI: 0.51-0.94; P-trend<0.05) and OS (T3 vs. T1: HR=0.73, 95% CI: 0.54-0.99; P-trend<0.05). The associations were significantly modified by C-reactive protein (CRP) levels but not by other selected prognostic factors including sex, age, etc. The favorable associations between serum choline and LCSS and OS were only existed among patients with CRP  $\geq 3.0$  mg/L. No significant associations were found between serum betaine levels and either LCSS or OS.

**Conclusions:** This study revealed that higher serum choline levels were associated with better HCC survival, especially in HCC patients with systemic inflammation status. No significant associations were found between serum betaine and HCC survival. Our findings suggest the benefits of choline on HCC survival.

### Biography

Dr. Zhao-Yan Liu received her BS in Public Health from Xiamen University, MS in Nutrition and Food Hygiene from Peking University and MD in Nutrition and Food Hygiene from Sun Yat-Sen University. Currently, Dr. Liu is conducting her postdoctoral training program in Sun Yat-Sen University. Her research is focused on the dietary one-carbon metabolism-related micronutrients intake and their circulating metabolisms in the risk and prognosis of liver cancer. Up to date, her researches have been supported by several funds, such as the Natural Science Foundation of Guangdong Province and Postdoctoral Science Foundation of China.

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May 24-25, 2021

## A multi-country cross-sectional study of self-reported sexually transmitted infections among sexually active men in sub-Saharan Africa

Abdul-Aziz Seidu<sup>1,2</sup>, Bright Opoku Ahinkorah<sup>3</sup>, Louis Kobina Dadzie<sup>1</sup>, Justice Kanor Tetteh<sup>1</sup>, Ebenezer Agbaglo<sup>4</sup>, Joshua Okyere<sup>1</sup>, Tarif Salihu<sup>1</sup>, Kenneth Fosu Oteng<sup>5</sup>, Eustace Bugase<sup>6</sup>, Sampson Aboagye Osei<sup>7</sup>, John Elvis Hagan Jr<sup>8,9</sup> and Thomas Schack<sup>9</sup>

<sup>1</sup>Department of Population and Health, University of Cape Coast, Cape Coast, Ghana

<sup>2</sup>College of Public Health, Medical and Veterinary Sciences, James Cook University, Townsville, Queensland, Australia

**Background:** Despite the importance of self-reporting health in sexually transmitted infections (STIs) control, studies on self-reported sexually transmitted infections (SR-STIs) are scanty, especially in sub-Saharan Africa (SSA). This study assessed the prevalence and factors associated with SR-STIs among sexually active men (SAM) in SSA.

**Methods:** Analysis was done based on the current Demographic and Health Survey of 27 countries in SSA conducted between 2010 and 2018. A total of 130,916 SAM was included in the analysis. The outcome variable was SR-STI. Descriptive and inferential statistics were performed with a statistical significance set at  $p < 0.05$ .

**Results:** On the average, the prevalence of STIs among SAM in SSA was 3.8%, which ranged from 13.5% in Liberia to 0.4% in Niger. Sexually-active men aged 25–34 (AOR = 1.77, CI: 1.6–1.95) were more likely to report STIs, compared to those aged 45 or more years. Respondents who were working (AOR = 1.24, CI: 1.12–1.38) and those who had their first sex at ages below 20 (AOR = 1.20, CI: 1.11–1.29) were more likely to report STIs,

compared to those who were not working and those who had their first sex when they were 20 years and above. Also, SAM who were not using condom had higher odds of STIs (AOR = 1.35, CI: 1.25–1.46), compared to those who were using condom. Further, SAM with no comprehensive HIV and AIDS knowledge had higher odds (AOR = 1.43, CI: 1.08–1.22) of STIs, compared to those who reported to have HIV/AIDS knowledge. Conversely, the odds of reporting STIs was lower among residents of rural areas (AOR = 0.93, CI: 0.88–0.99) compared to their counterparts in urban areas, respondents who had no other sexual partner (AOR = 0.32, CI: 0.29–0.35) compared to those who had 2 or more sexual partners excluding their spouses, those who reported not paying for sex (AOR = 0.55, CI: 0.51–0.59) compared to those who paid for sex, and those who did not read newspapers (AOR = 0.93, CI: 0.86–0.99) compared to those who read.

**Conclusion:** STIs prevalence across the selected countries in SSA showed distinct cross-country variations. Current findings suggest that STIs intervention priorities must be given

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New Insights in Diagnosis and  
Treatment

across countries with high prevalence. Several sociodemographic factors predicted SR-STIs. To reduce the prevalence of STIs among SAM in SSA, it is prudent to take these factors (e.g.,

age, condom use, employment status, HIV/AIDS knowledge) into consideration when planning health education and STIs prevention strategies among SAM.

## Post-transplant inflow modulation for early allograft dysfunction after living donor liver transplantation

**Mohamed Elshawy<sup>1,2</sup>, Takeo Toshima<sup>1</sup>, Yoshiki Asayama<sup>3</sup>,  
Yuichiro Kubo<sup>3</sup>, Shinichiro Ikeda<sup>1</sup>, Toru Ikegami<sup>1</sup>, Shingo  
Arakaki<sup>4</sup>, Tomoharu Yoshizumi<sup>1</sup> and Masaki Mori<sup>1</sup>**

<sup>1</sup>Department of Surgery and Science, Graduate School of Medical Sciences, Kyushu University, Japan

<sup>2</sup>Department of General Surgery, Faculty of Medicine, Ain Shams University, Egypt

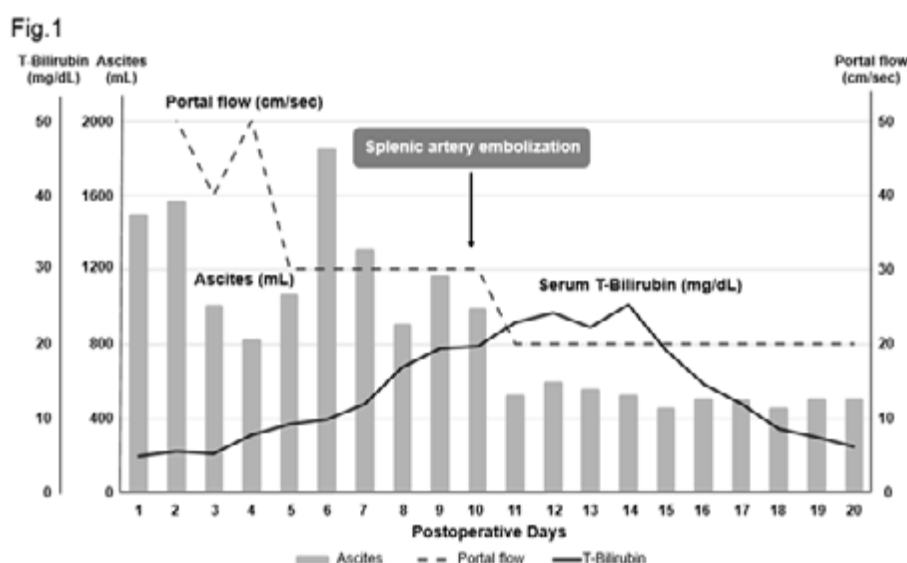
<sup>3</sup>Department of Clinical Radiology, Graduate School of Medical Sciences, Kyushu University, Japan

<sup>4</sup>Department of Infectious, Respiratory, and Digestive Medicine, Graduate School of Medicine, University of the Ryukyus, Japan

**Background:** To treat small-for-size syndrome (SFSS) after living donor liver transplantation (LDLT), many procedures were described for portal flow modulation before, during, or after transplantation. The selection of the procedure as well as the best timing remains controversial.

**Case presentation:** A 43-year-old female with end-stage liver disease underwent LDLT with

extended left with caudate lobe graft from her donor who was her 41-year-old brother (graft volume/standard liver volume (GV/SLV), 35.7%; graft to recipient weight ratio (GRWR), 0.67%). During the surgery, splenectomy was risky owing to severe peri-splenic adhesions to avoid the ruined bleedings. The splenic artery ligation was not also completely done because it was dorsal to the pancreas and difficult to be approached.



**Fig. 1** Clinical course and laboratory workup after living donor liver transplantation pre- and post-splenic artery embolization



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May 24-25, 2021

Finally, adequate portal vein (PV) inflow was confirmed after portal venous thrombectomy. As having post-transplant optional procedures that are accessible for PV flow modulation, any other procedures for PV modulation during LDLT were not done until postoperative assessment of the graft function and PV flow for possible postoperative modulation of the portal flow accordingly. Postoperative PV flow kept as high as 30 cm/s. By the end of the 1st week, there was a progressive deterioration of the total bilirubin profile (peak as 19.4 mg/dL) and ascitic fluid amount exceeded 1000 mL/day, Fig. (1). Therefore, splenic artery embolization was done

effectively and safely on the 10<sup>th</sup> postoperative day (POD) to reverse early allograft dysfunction as PV flow significantly decreased to keep within 20 cm/s and serum total bilirubin levels gradually declined with decreased amounts of ascites below 500 mL on POD 11 and thereafter. The patient was discharged on POD 28 with good condition.

**Conclusions:** SFSS can be treated by the portal inflow modulation, even by postoperative procedure. This case suggests that accessible angiographic treatment options for PV modulation, such as splenic artery embolization, after LDLT are quite feasible.

## Biography

Mohamed Elshawy is a lecturer of HPB surgery, Ain Shams University hospitals and fellow of LDLT, Alfatmia Hospital, Cairo, Egypt. He received residency training at general surgery department, Ain Shams University Hospitals. In 2015, he was awarded NIH funded research scholarship to University of Maryland, Baltimore, USA. After completing M.D, he was appointed as lecturer of general surgery at Ain Shams University.

He continued to hone his surgical techniques when he joined Fortis healthcare Institutes, India as a visiting scholar. He was trained on minimally invasive and robotic surgery. In late 2019, he pursued advanced fellowship training in HPB and LDLT at Kyushu University Hospital, Japan. He received training on laparoscopic techniques, use of ICG in HPB surgery and techniques enhancing outcome of LDLT. Among his research interest, portal flow modulation strategies, and prognostic value of inflammatory markers in selecting HCC candidates for LDLT.

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May 24-25, 2021

## Successful outcome in acute gastric volvulus in a low resource hospital setting in Bangladesh: A case report

**Bappy Basak<sup>1</sup>, M.Tasdik Hasan<sup>2</sup>, Jessica Stauber<sup>3</sup>, Amit Sen  
 Gupta<sup>4</sup>, Safiqul Islam<sup>4</sup> and S.M. Quamrul Akther<sup>4</sup>**

<sup>1</sup>Liverpool Heart and Chest Hospital, United Kingdom

<sup>2</sup>Department of Psychological Sciences, University of Liverpool, United Kingdom

<sup>3</sup>University of Texas Medical Branch at Galveston, USA

<sup>4</sup>Shaheed Suhrawardy Medical College & Hospital, Bangladesh

**Introduction:** Gastric volvulus is a rare medical emergency that can be fatal if not recognized early. Its rarity makes it quite challenging to diagnose but delaying in diagnosis and treatment can lead to fatal complications. Meticulous assessment and broadened differential diagnosis are thus crucial. Organoaxial volvulus, in which the stomach rotates 180 degrees around its long axis, is the most common subtype of gastric volvulus, occurring predominantly in infants and older adults.

**Presentation of the case:** Here, we present a case of acute organoaxial gastric volvulus in a 17-year-old male presenting to a low-resource hospital in Bangladesh with severe upper abdominal pain and postprandial vomiting. Initial assessment revealed severe epigastric tenderness and mild dehydration. Plain abdominal x-ray showed a hugely distended

bowel with single air fluid level and thoracic herniation of the stomach. The patient was resuscitated then sent to the operating theatre for urgent laparotomy and sleeve gastrectomy with anterior gastropexy. Treatment was successful, and the patient survived.

**Discussion:** Acute gastric volvulus, a life-threatening surgical emergency can be treated successfully if identified timely. Though the CT scan is diagnostic, Borchardt's triad can be helpful as well.

**Conclusion:** This is the second consecutive case managed by the same surgeon in the same hospital, highlighting that high index of clinical suspicion is an important tool to diagnose this condition early. Timely diagnosis and treatment are essential to avoid fatal complications, denoting the importance of documenting such cases.

### Biography

I am an SHO in Liverpool Heart and Chest Hospital and interested in surgical research. During my FY1 I developed interest in research and would like to work in wound healing and regeneration. Regeneration studies are becoming popular and I believe it can be very productive and helpful for people that can give them a new meaning of life. Who has lost a limb or who has developed a scar from burn or wound, we can give them a better life from this studies. I would like to work in such projects in the future to help humanity..



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May 24-25, 2021

## Results of single-stage tactics in the case of treatment of acute cholecystitis in combination with choledocholithiasis

**D.Zhumatayev, A.Baimakhanov, B. Askeyev and  
A. Raimkhanov**

*Asfendiyarov Kazakh National Medical University, Kazakhstan*

**Background:** Common bile duct stones are found in patients with acute cholecystitis between 8% and 20% cases. This pathology requires solving the problem of the gallbladder and the common bile duct at the same time. The aim of our study was to compare the effectiveness of single-stage endoscopic retrograde cholangiopancreatography (ERCP) and laparoscopic cholecystectomy (LC) with preoperative ERCP followed by LC 3 days later.

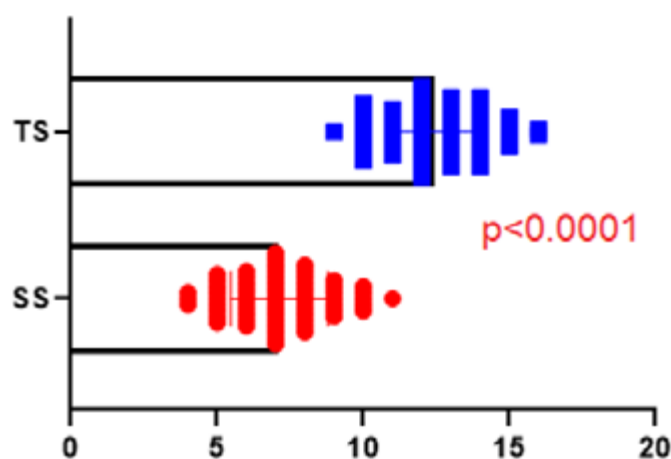
**Materials and methods:** We retrospectively analyzed the medical records of 135 patients who underwent ERCP followed by LC for acute cholecystitis in combination with choledocholithiasis from January 2016 to March 2021. Patients who underwent single-stage treatment were assigned to group A (n = 63), patients who underwent two-stage treatment were assigned to group B (n = 72). The study process included a comparison of laboratory data (total bilirubin, alanine aminotransferase,

	Single-stage	Two-stage	p value
Total bilirubin level at admission	66.2±51.28	98.7±78.8	p<0,0070
Total bilirubin level on discharge	28.2±28.5	31.8±44.9	p<0,0129
ALT at admission	225.5±183.4	203.0±173.5	ns
ALT on discharge	85.5±57.0	87.6±91.6	ns
AST at admission	173.0±168.4	157.8±141.3	ns
AST on discharge	55.4±39.4	53.2±37.0	ns
Amylase at admission	264.4±751.3 (53.4%)	144.3±256.1 (64%)	ns
Amylase on discharge	66.6±44.3	56.9±24.9	ns
Leucocytes at admission	13.1±3.2	12.0±2.8	ns
Leucocytes 3rd day	10.8±9.0	12.1±2.5	p<0,0001
Leucocytes 5th day	8.9±9.1	10.2±2.1	p<0,0001

Table 1. Pre- and post-operative parameters.

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May 24-25, 2021



**Figure 1.** Hospital stay

aspartate aminotransferase, amylase and white blood cells), duration of anesthesia, length of hospital stay, clinical outcomes and complications.

**Results:** Significant statistical differences were found in several laboratory data (Table 1).

Total bilirubin at both admission and discharge showed a significant difference between two groups ( $p < 0.0129$ ). The dynamics of the decrease in blood leukocyte counts in the postoperative period in group A was significantly faster than in group B ( $p < 0.0001$ ). The duration of anesthesia in group B ( $145.6 \pm 35.0$ ) was

longer than in group A ( $133.0 \pm 27.2$ ), but there was no significant difference. The hospital stay in group A was statistically significantly shorter than in group B ( $7.1 \pm 1.6$  vs  $12.7 \pm 2.4$ ;  $p < 0.0001$ ) (Figure 1).

**Conclusion:** Single-stage ERCP plus LC is accompanied by a reduction in moral and psychological trauma to the patient, material and economic costs due to decreasing of postoperative complications and hospital stay, the introduction of smaller doses of drugs (one anesthesia instead of two), provides an opportunity for early rehabilitation of patients.

## Biography

Dauren Zhumatayev was born on October 24, 1985 in Almaty. In 2003, after graduating from high school, he entered the medical faculty of the Asfendiyarov Kazakh National Medical University. In 2009-2010, he completed an internship in the specialty "Surgery". In 2010-2013, he completed residency training in the specialty "General Surgery". From 2013 to 2018, he worked as a research assistant at the Department of Surgery of the Asfendiyarov Kazakh National Medical University. From 2018 to the present, PhD candidate of the Department of Surgery of the Kazakh National Medical University. He is married and has 3 children.

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May 24-25, 2021

## Comparative study of the outcomes of the second kidney transplantation from the young deceased donors versus living-unrelated donors

**Seyed Mohammad Kazem Aghamir**  
*Tehran University of Medical Sciences, Iran*

**C**ompare the kidney graft function and survival in patients who had a second kidney transplantation from living donors versus those who had a second transplant from young deceased donors was the aim of this study. In this retrospective cohort study, a total of 86 patients who underwent second kidney transplantation in Shariati hospital from 2001 until 2017 were enrolled. Baseline clinical data on the age, sex, type of kidney donor (living unrelated or deceased), duration of pretransplant dialysis, and the length of hospitalization were recorded. As the indicators of the graft function, we used the serum creatinine level and estimated glomerular filtration rate (eGFR) at time intervals during the study. The 1, 5, and 10-year graft survival rates were reported using life tables and the relative hazard ratios of the graft failure were calculated using the forward stepwise Cox proportional hazard model. Forty-six of our patients were

men (53.5%), with a mean  $\pm$  SD age of  $44.3 \pm 12.3$  years at the time of transplantation. The majority of the enrolled patients received the kidney from living unrelated donors (50 vs. 36 patients). In terms of serum creatinine and eGFR, at time intervals, no significant difference was found between the two recipient groups. In the living donor group, the 1, 5, and 10-year graft survival rates of the second transplant were 91% (95%CI: 73-96%), 87% (95%CI: 69-95%), and 82% (95%CI: 59-92%), and for the deceased donor group were 95% (95% CI: 69-99%), 95% (95%CI: 69-99%), and 79% (95%CI: 31-95%), respectively. Considering the long-term outcomes of the second kidney transplantation, in our experience, the graft function and survival, either from the living or deceased donors, were favorable; and the type of organ donation had no significant effect on the risk of graft failure.

## Validation of circom comorbidity score in critically-ill cirrhotic patients

**Maged EL-Ghannam<sup>1</sup>, Yosry Abdelrahmana,  
Hoda Abu-Taleb<sup>2</sup>, Marwa Hassan<sup>3</sup>, Moataz Hassanien<sup>1</sup>  
and Mohamed Darwish EL-Talkawy<sup>1</sup>**

<sup>1</sup>Hepatogastroenterology Department, Theodor Bilharz Research Institute, Egypt

<sup>2</sup>Biostatistics and Demography, Department of Environmental Research, Theodor Bilharz Research Institute, Egypt

<sup>3</sup>Immunology Department, Theodor Bilharz Research Institute, Egypt

**Background and aim of work:** CirCom score has been designed specifically for cirrhotic patients as it is used to reassess which comorbidities associate with mortality of those patients. The current study was designed to assess the performance of CirCom comorbidity score in predicting the mortality of critically ill cirrhotic patients of hepatitis C virus (HCV) etiology.

**Methodology:** 1085 consecutive patients admitted to the ICU in a two-year period were included. All were anti- HCV Ab positive with liver cirrhosis and portal hypertension as evidenced by clinical examination, laboratory, ultrasonographic and endoscopic features. None of them received oral antiviral treatment.

**Results:** Out of the 1085 Patients, 321 (29.5%) patients died and 764 (70.4%) survived. Co-

**Table 4**  
Odds ratio for increased risk of death.

	B	Standard error	Significance	Odds ratio	95% C.I.	
					Lower	Upper
CirCom (1 + 0)	.727	.346	.035	2.070	1.051	4.074
CirCom (1 + 1)	.977	.363	.007	2.655	1.303	5.410
CirCom (3 + 0)	1.531	.347	.000	4.623	2.341	9.131
CirCom (3 + 1)	1.905	.646	.003	6.722	1.694	23.657
CirCom (5 + 0)	2.133	.276	.000	8.438	4.609	14.563
CirCom (5 + 1)	2.556	.457	.000	12.676	5.260	31.529
Constant	1.839	.231	.0091	1.476		

[Ln P/1-P = 1.839 + 0.727\**CirCom* (1 + 0) + 0.977\**CirCom* (1 + 1) + 1.531\**CirCom* (3 + 0) + 1.905\**CirCom* (3 + 1) + 2.133\**CirCom* (5 + 0) + 2.556\**CirCom* (5 + 1)]. Overall, the model correctly predicted 82.24% patients.

B: the relationship between the odds ratio and the coefficient.

**Theme:** The Future of  
Gastroenterology and Hepatology:  
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**Table 5**  
Recorded ICU mortality of patients with and without comorbidity.

	Non survivor	Survivor	Total
CirCom 0	81 (7.46%)	432 (39.82%)	513
Other CirCom scores	240 (22.12%)	332 (30.59%)	572
Total	321 (29.58%)	764 (70.41%)	1085

$\chi^2$  test = 59.09  $p < 0.01$  significant.

morbidities were found in 572 (52.7%), CirCom score 0 in 47.28%, 1 + 0 in 4.33%, 1 + 1 in 7.19%, 3 + 0 in 6.45%, 3 + 1 in 9.4%, 5 + 0 in 12.16%, 5 + 1 in 13.18%. Adjusted ORs for increased risk of death were 2.07, 2.65, 4.62, 6.72, 8.43 and 12.87, respectively. Overall, the model correctly predicted 82.24% of patients.

**Conclusion:** The CirCom score performance as a measure of the burden of comorbidity in critically ill cirrhotic patients is fairly good and 82.24% of patients were correctly predicted by the model. Actual and expected survivals were comparable. This emphasizes the importance of including a measure of comorbidity in comparative studies of cirrhosis survival.

## Biography

Hepato-Gastroenterology and Tropical medicine Departement, Hospital of Theodor Bilharz Research Institute,Ministry of Scientific Research and Technology:

Resident:1984-1987

Assistant Lecturer:1988-1995

Lecturer:1995-2000

Assistant Professor:2000-2005

Professor:2005

Head of Hepatogastroenterology Department: May 2011-2014

Acting head of Public Health Department in TBRI: 2018

Secretary General of the Scientific ReheralPermenantCommity in TBRI since 2020

Fellow of Gastroenterology,University of Southern California(USC),1989

Fellow of Gastroenterology,University of California-San Diego (UCSD),1990-1991

Visiting Clinician in Division of Gastroenterology and Hepatology,Mayo Clinic,Rochester,Minnesota,November,1997

Visiting Clinician in Division of Gastroenterology andHepatology, Mount Sinai Medical Center, NY,October,2000

Co-course director, 2<sup>nd</sup> Hepatology and Gastroenterology Post Graduate Course, 11<sup>th</sup> International Workshop on Therapeutic Endoscopy, Endorsed By American College of Gastroenterology (ACG) in collaboration with World Gastroenterology Organization (WGO) Celebrating 50th Anniversary

Imhotop (Egyptian-French co-operational project) as Co-PI in the project "Analysis of cofactors associated with progression of fibrosis, cirrhosis and HCC in untreated Egyptian patients affected by chronic HCV",2007.

Chairperson of the 1<sup>st</sup> session in the second scientific meeting in Hepatogastroenterology between Theodor Bilharz research Institute and Beaujon Hospital (France): Monday, March 17<sup>th</sup>,2008

VistingHepatogastroenterology department in Beujoun Hospital, France, to strengthen the agreement between TBRI and the hospital in year 2013 for 2 days; 16<sup>th</sup> and 17<sup>th</sup> January 2013

Imhotop (Egyptian-French co-operational project) as Co-PI in the project "Validation of new histopathological algorithm and scoring system in evaluation of liver lesions in Egyptian patients with chronic HCV, correlation with insulin resistance and metabolic syndrome",2015.

Expert in GI endoscopy including ERCP.

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## Levothyroxine-induced liver injury followed by complete recovery upon cessation of the drug: A case report

**Abbas F. Hlaihel<sup>1</sup> and Mudher Z. H. Al-Khairalla<sup>2</sup>**

<sup>1</sup>University of Thi-Qar Medical college , Iraq

<sup>2</sup>ThiQar Lung Diseases Centre, Iraq

**Background:** Levothyroxine is a synthetic thyroxine and is the treatment of choice for hypothyroidism. On initiation of treatment, levothyroxine is titrated, and usually it is extremely well tolerated in the vast majority of patients. We report a case of a patient with self-limiting levothyroxine-induced liver injury, a rare adverse effect of this drug.

**Case presentation:** We report a case of a 34-year-old Mediterranean woman diagnosed with post-thyroidectomy hypothyroidism. She was commenced on levothyroxine and developed liver injury confirmed by noninvasive liver investigations. Complete recovery of the patient's liver tests occurred upon cessation of the drug. Triiodothyronine was an appropriate treatment alternative.

### Results:

Date*	March	March 12	March 14	March 15	March 23	March 26	March 27	March 31	April 4	April 5	April 9
TSH				12.7	32.6				>75.0		
ft4											
T4									40.81		
T3									0.72		
D.Bil	2.4	1.4			1.26	1.1		0.7		0.5	0.5
T.Bil					1.73	2.0		1.3		1.3	1.5
AST		372			26	195		74		49	45
ALT		549			69	486		191		101	86
AP		383			97	153		120		87	94
S.Alb		28				3.3					



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**Discussion:** Similar pattern of levothyroxine-induced liver injury has been reported. Kawakami *et al.* speculated that the complex of levothyroxine as the hapten and liver-related macromolecules in the body of the patient in their case report might have acquired antigenicity, which subsequently resulted in the liver injury. Kang *et al.* interestingly showed that after their patient experienced DILI due to levothyroxine in tablet form, the same was not observed when the patient was commenced on levothyroxine in powder form. This may suggest a casual effect due to the additives contained in these preparations. The mechanisms behind levothyroxine-induced liver injury therefore remain unclear. Among patients in all three previous reports and our patient, none underwent liver biopsy, and in all cases, liver enzymes normalized after cessation

of the drug. We opted not to offer liver biopsy. Experts may argue that DIAIH, which can recur at a later stage, cannot be absolutely excluded without a liver biopsy. There is a lack of data comparing these patients with those who have autoimmune hepatitis. Our patient did not have any positive autoimmune antibody tests results and required no immunosuppression, both of which argue against DIAIH, albeit that some patients with DIAIH recover without the need for immunosuppression. Treating our patient's hypothyroidism with triiodothyronine was effective and did not lead to liver enzyme derangement.

**Conclusion:** Knowledge of this rare adverse effect is important in the differential diagnosis of patients who have commenced on levothyroxine and have deranged liver enzymes in the context of hypothyroidism.

## Biography

Dr. Abbas Fadhil Hlail,   
M BCh B FICMS  
Assistant Professor of Internal Medicine  
Senior Consultant in internal medicine  
President of the Society of Internal Medicine, in Thi Qar The Internists Association-Iraq.



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1126 59 Ave East, V5X 1Y9, Vancouver BC, Canada

Ph : +1-778-766-2134 / Contact us: [contact@peersalley.com](mailto:contact@peersalley.com)

# INDEX

Speaker	Pg No.
Abbas F. Hlaihel	42
Abdul-Aziz Seidu	32
Adnan Taib	20
Bappy Basak	36
Burmistrov Aleksandr Igorevich	9
Chunwen Pu	29
Cilénia Baldaia	10
DaurenZhumatayev	37
Dongfang Liu	21
Gerard E. Mullin	23
Graham Betts-Symonds	8
Inês Filipa Janeiro da Silva	19

Speaker	Pg No.
Maged Elghannam	40
Marlene Fabiola Escobedo-Monge	16
Mohamed Elemam Elshawy	34
Omesh Goyal	12
Paolo Delrio	18
R. Sharon Chinthrajah	26
Renxue Wang	24
Seyed Mohammad Kazem Aghamir	39
Shuai Wang	27
Tapasya Raavi	25
Yavuz AYAR	14
Zhao-Yan Liu	31





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