News and Views

Influence of Childhood Obesity on Liver Health

Occurrence of childhood obesity, a worrisome worldwide epidemic has augmented over the last 3 decades. This rapidly increasing trend warrants the need to consider accurate body mass index (BMI) classification, as well as metabolic and cardiovascular, and hepatic outcomes. The author of the current study reviewed literature in PubMed and EMBASE and highlighted data that assessed the effects of obesity on cardiovascular and liver health.

In addition, investigators also determined the current literature that studied the role of excessive body fat accumulation in childhood and across adulthood on cardiovascular and hepatic alterations. Besides, the influence of physical and dietary behaviors starting from childhood on cardio-metabolic consequences was also considered.

It was observed that in children, due to increasing obesity, nonalcoholic fatty liver disease (NAFLD) is the most common cause of liver disease. Similarly, nonalcoholic steatohepatitis (NASH) in children may evolve to fibrosis, cirrhosis and liver failure, as evidence suggest that these changes can begin as early as 8 years. However, correlation between NAFLD and NASH, in children is not as strong as adults, suggesting a milder phenotype of NAFLD. Therefore, early identification of NAFLD along with comorbidities in children can act as a preventive measure against death because of cardiovascular disorders in adults. Various trials revealed that while diagnosing through elevated serum aminotransferases, imaging or liver biopsy, prevalence of NAFLD in children and adolescents and in obese children ranges between 6 and 38%, varying according to the context, the population studied and the ethnicity.

Thus, epidemic of obesity and obesity-related comorbidities worldwide pose a significant challenge regarding the impact of early abnormalities during childhood and adolescence. Hence, early identification with the proper metabolic screening along with dietary interventions and physical activity can act as an important aid in children to prevent the onset of obesity, cardiovascular diseases (CVDs) and diabetes risk during adulthood.

(*Source: World J Pediatr. 2020;1-8.*)

ADA 2021 Standards Address Financial Barriers to Care in Diabetes

For 2021, the American Diabetes Association (ADA) offers new guidance on assessment of patients' financial and social barriers to care, particularly considering the coronavirus disease 2019 (COVID-19) pandemic, individualizing treatment for patients with type 2 diabetes and the use of diabetes technology.

The annual ADA update includes new clinical information that has become available since the last Standards were published. "Standards of Medical Care in Diabetes—2021," was published online as a supplement to *Diabetes Care*. In the new Standards, the ADA advises that patients must be assessed for food and housing insecurity, social support and cost-related medication nonadherence, and those who are identified as having difficulty must be referred to appropriate community resources… (*Medscape*)

WHO Launches Labour Care Guide

The World Health Organization (WHO) and HRP have launched the "Labour Care Guide" in a bid to improve every woman's experience of childbirth, and to ensure health and well-being of women and their babies.

The WHO Labour Care Guide is a new tool, putting the WHO recommendations on intrapartum care into practice. It is aimed at assisting skilled healthcare personnel to provide woman-centered, safe and effective care and to enhance the outcome and experience of childbirth for every woman and baby. This tool tends to advance an individual-centered approach to monitoring a woman's as well as her baby's health and well-being from active first stage of labour to the end of second stage of labour… (*WHO*)

FDA Authorizes Antigen Test as First OTC At-Home Diagnostic Test for COVID-19

The US Food and Drug Administration (FDA) has issued an emergency use authorization (EUA) for the first over-the-counter (OTC) complete at-home test for the diagnosis of COVID-19.

The Ellume COVID-19 Home Test is a rapid, lateral flow antigen test. In this test, a liquid sample runs along a surface with reactive molecules. The test identifies fragments of proteins of the severe acute respiratory

syndrome coronavirus 2 (SARS-CoV-2) virus from a nasal swab sample from an individual 2 years of age or older. The FDA has provided authorization to over 225 diagnostic tests for COVID-19 since the outset of the pandemic, including more than 25 tests that allow for home sample collection, followed by sending them to a lab for testing. The Ellume COVID-19 Home Test is the first COVID-19 test that can be used completely at home without the need for a prescription… (*FDA*)

Risk of Bone Fractures Increased in Non-meat Eaters

Compared with meat eaters, vegans were found to be at a heightened risk of total and site-specific fracture of the hip, leg and vertebrae, in a study published in *BMC Medicine*. Vegetarians and fish eaters also had a higher risk of hip fractures than meat eaters.

Investigators collected dietary information of 54,898 participants in the EPIC-Oxford study at baseline (1993-2001) and follow-up (2010). Participants were followed continuously for 17.6 years on average until 2016 for the occurrence of fractures. After adjusting for socioeconomic factors, lifestyle confounders and BMI, compared with meat eaters, the risks of hip fracture were higher in fish eaters (adjusted hazard ratio [aHR], 1.26; 95% confidence interval [CI], 1.02-1.54), vegetarians (aHR, 1.25; 95% CI, 1.04-1.50), and vegans (aHR, 2.31; 95% CI, 1.66-3.22). Vegans also appeared to have higher risks of total fracture, hip fracture, leg fracture and other main site fractures… (*Medscape*)

Fast Walking in Narrow Corridors can Increase COVID Transmission Risk, Says Study

According to a study published in the journal *Physics of Fluids*, fast walking in narrow spaces behind a group of people can cause a significant rise in COVID-19 transmission risk, particularly in children. The study noted that respiratory droplets carrying the virus can trail behind infected individuals moving through narrow corridors.

Results of the computer simulation highlighted the importance of the shape of spaces in predicting how virus-laden droplets travel through the air. The study suggests that if a person walking through a corridor coughs, their breath expels droplets that can move around and behind their body, thus forming a wake, just like that formed by a boat in water as it travels. Researchers noted a "re-circulation bubble" directly behind the person's torso and a long wake streaming out behind the individual at about the height of the waist… (*HT – PTI*)

Baseline Report for Decade of Healthy Ageing Launched by WHO

Around 14% of all people aged 60 years and above, amounting to over 142 million people, are unable to meet their basic daily needs, suggests the Baseline report for the Decade of Healthy Ageing, launched by the WHO.

The Decade of Healthy Ageing begins in 2021 and aims at optimizing functional ability. It focuses on five interrelated abilities that must be enjoyed by all older people and include the ability to meet basic needs; to continue to learn and make decisions; to be mobile; to build and maintain relationships and to contribute to society. The Baseline report also puts forward the experience of countries which have successfully initiated healthy ageing initiatives in these areas, such as Ireland, Mexico and Viet Nam… (*WHO*)

Babies Born to COVID-19 Mothers have Antibodies: Singapore Study

All five babies born to women with COVID-19 infection have had antibodies against the virus, revealed a study in Singapore. However, the investigators stated that it was not clear what level of protection this may offer.

The study of 16 women also noted that most were mildly infected, and more severe reactions were observed in older women with a high BMI. The number of antibodies in the babies varied, and was found to be greater among those whose mothers had contracted the infection closer to the time of delivery. Researchers stated that further monitoring will be needed to determine whether the antibodies will fall as the babies get older… (*Reuters*)

FDA Authorizes Home Use of 15-minute COVID-19 Antigen Test

The US FDA has granted EUA for COVID-19 Ag Card rapid antigen test for SARS-CoV-2 detection. The test can now be used at home with a prescription.

In August, the COVID-19 Ag Card was authorized by the FDA as a point-of-care test in clinical settings, while the new EUA has cleared the test for prescription use at home with self-collected nasal swab samples for individuals 15 years of age or above who are suspected of having COVID-19, within the first week of onset of symptoms. It has also been authorized for use with adult-collected nasal swab samples from individuals aged 4 years or older suspected of having COVID-19 within 7 days… (*Medscape*)

Protecting Eyes from COVID-19

Dr Anthony Fauci has suggested that eyewear, including goggles or face shields, can provide more complete protection from the coronavirus in comparison with covering just the nose and mouth.

Fauci backs the use of eyewear for those who want "perfect protection of the mucosal surfaces", including the eyes. However, for the general public, it is optional to use eye protection, but could act as an effective means to reduce the risk for COVID-19, depending on the environment.

In updated guidance - Interim Infection Prevention and Control Recommendations for Healthcare Personnel During the COVID-19 Pandemic - the Centers for Disease Control and Prevention (CDC) recommends the use of eye protection for healthcare providers caring for patients with suspected or confirmed SARS-CoV-2 infection, and those working in facilities located in areas with moderate to substantial community transmission who have greater odds of encountering asymptomatic or presymptomatic patients with SARS-CoV-2 infection (*Medscape*)

First Oral Hormone Therapy for Advanced Prostate Cancer Approved

The US FDA has granted approval for relugolix for the treatment of adult patients with advanced prostate cancer.

The safety and efficacy of the drug were assessed in a randomized, open-label trial in men with advanced prostate cancer. The patients were randomized to receive either relugolix once daily or injections of leuprolide, every 3 months for 48 weeks. Investigators assessed if relugolix achieved and maintained low enough levels of testosterone (castrate levels), by Day 29 through end of the treatment course. Among the 622 patients who received relugolix, the castration rate was found to be 96.7%. The most common side effects of the drug include hot flush, raised glucose, increased triglycerides, musculoskeletal pain, reduced hemoglobin, fatigue, constipation, diarrhea and raised levels of certain liver enzymes… (*FDA*)

COVID-19 More Serious Than Flu, Says Study

Nearly twice as many patients were admitted to hospitals in France for COVID-19 over a 2-month period compared to those admitted for seasonal influenza during a 3-month period the previous year, reported a study published online in *The Lancet Respiratory Medicine*.

In-hospital mortality was around three-fold higher for COVID-19 compared to that for seasonal influenza, noted the researchers. Patients with COVID-19 appeared to have a higher likelihood of requiring invasive mechanical ventilation (9.7% vs. 4%) and also had longer average ICU stays (15 days vs. 8 days). The death rate was found to be 16.9% among patients hospitalized with COVID-19, in comparison with 5.8% among patients hospitalized with influenza… (*Medscape*).

2020 List of 100+ Outstanding Women Nurses and Midwives Unveiled

Marking the end of the Year of the Nurse and Midwife, the 2020 List of 100+ Outstanding Women Nurses and Midwives has been unveiled.

The partnership of the WHO, United Nations Population Fund (UNFPA), Nursing Now, International Council of Nurses (ICN), International Confederation of Midwives (ICM) and Women in Global Health (WGH), highlights the achievements and contributions of nurses and midwives from 43 countries, across 6 global regions, and recognizes these women as well as millions of nurses and midwives across the globe. Midwives and nurses form the backbone of primary health systems and their care during this year of the pandemic has had an impact far beyond the facilities where they work… (*WHO*)

US Frontline Essential Workers, People 75 and Older, should be Next for COVID Vaccination, Says CDC Panel

A US Centers for Disease Control and Prevention advisory panel has recommended that frontline essential workers and individuals aged 75 years and above should be next to receive a COVID-19 vaccine.

The Advisory Committee on Immunization Practices (ACIP) voted 13 to 1 recommending frontline essential workers, including first responders, teachers, food and agriculture, manufacturing, postal service, public transit and grocery store workers, to be the next priority for vaccination. The step would make 51 million people eligible to get vaccinated in the next round. However, it wasn't immediately clear when the next round would start. Frontline healthcare workers and nursing home residents had already been recommended by the panel to be the first priority groups… (*Reuters*)

Johnson & Johnson Hopes to Apply for EUA for its COVID-19 Vaccine in February

Johnson & Johnson has recruited 45,000 participants in phase III of its clinical trials for a COVID-19 vaccine and

hopes to apply for a EUA from the FDA in the month of February, stated the company in a news release.

It is expected that data from phase III will be available by the end of January. The Johnson & Johnson vaccine differs from the Pfizer and Moderna vaccines as it doesn't need to be frozen and only requires one dose. Trials of the Johnson & Johnson vaccine were halted in the fall as a participant developed an "unexplained illness". However, the trials were started again 2 weeks later… (*Medscape*)

LVAD Approved for Children

The HeartMate 3 left ventricular assist device (LVAD) has been approved for pediatric patients with advanced heart failure, stated Abbott. The approval includes both bridge to transplant and destination therapy for children not eligible for a transplant owing to potential complications or risk related to the procedure. The HeartMate 3 device only fits in large children or teens.

The pediatric approval for the device was based on findings from 9 centers in the Advanced Cardiac Therapies Improving Outcomes Network (ACTION) consortium of US pediatric centers. Among 35 patients implanted, with a median age of 16 years, most with dilated cardiomyopathy alone (63%) or in the setting of neuromuscular disease (20%), the survival rate was found to be 97% to median 78 days of follow-up. The device was shown to be successful in children as small as 19 kg… (*Medpage Today*)

COVID-19's Impact on Epilepsy Around the World

The COVID-19 pandemic has placed an enormous strain on patients with epilepsy across the world, suggests new research.

Nearly 30% of respondents to a global survey, on the impact of the COVID-19 pandemic on epilepsy patients and services, reported mental strain and 20% reported sleep problems. These could act as triggers for worsening seizures and could point to increasing epilepsy risks, noted study investigator Arjune Sen. The most notable finding of the study was that people with epilepsy and their caregivers reported poor communication on epilepsy-associated risks, stated Sen. The study was presented at the virtual American Epilepsy Society (AES) 74th Annual Meeting 2020… (*Medscape*)

GI Bleeds Linked with Worse Prognosis for COVID-19 Inpatients

Gastrointestinal (GI) bleeding was noted in 3% of hospitalized COVID-19 patients, and a bleed developing during hospitalization was associated with greater mortality, revealed a large New York cohort study.

Anticoagulation or antiplatelet agents were not found to be the risk factors for GI bleeding, but they did not protect against them either, reported researchers. Patients treated at a large health system in the metropolitan New York area between March 1 and April 27, 2020 were included in the study. Out of 11,158 polymerase chain reaction (PCR)-positive COVID-19 inpatients, 314 were found to have GI bleeding, for a rate of 3%, and a GI bleed during hospitalization was tied to an increased mortality risk with an odds ratio of 1.58. The study was published online in the *Journal of Internal Medicine*… (*Medpage Today*)

Bariatric Surgery Might Reduce COVID-19 Severity

Individuals with obesity who lost weight after bariatric surgery and later contracted COVID-19 appeared to have lesser odds of being admitted to the hospital for COVID-19, and the disease was found to be less severe than among COVID-19 patients with obesity who had not undergone the surgery, suggested a new retrospective analysis. Investigators matched 33 COVID-19 patients who had undergone metabolic surgery with 330 control patients with obesity who were infected with COVID-19 during the first wave of the pandemic. Surgery appeared to be associated with a 69% reduction in the risk of being hospitalized due to COVID-19. None of the surgery patients needed intensive care, mechanical ventilation or dialysis, and none of them died. The findings were published in *Surgery for Obesity and Related Diseases*… (*Medscape*)

After COVID-19 Infection, Antibodies Highly Protective for Months: Study

Following SARS-CoV-2 infection, antibodies protect most healthcare workers from reinfection for up to 6 months, suggested the first prospective study of the subject. Investigators looked for the presence of two antibodies to SARS-CoV-2 among 12,541 healthcare workers in the United Kingdom, including nearly 10% who had a history of PCR-confirmed infection. In all, 223 who did not have antibodies tested positive on PCR for the virus during 31 weeks of follow-up; two participants who did not have antibodies at baseline tested positive. The odds of a subsequent positive PCR test result were 1.09 per 10,000 days at risk among individuals who did not have antibodies, compared to 0.13 per 10,000 days among those with anti-spike antibodies. The findings were published online in *The New England Journal of Medicine*… (*Medscape*)

COVID-19 Immunity Lasts At Least 8 Months: Study

People who have recovered from COVID-19 infection have immune memory to protect against reinfection for at least 8 months, suggests a new study published in the journal *Science Immunology*. The study provides robust evidence that COVID-19 vaccines will likely work for long periods.

Earlier studies have; however, shown that antibodies against the coronavirus dwindle after the first few months of infection. Investigators enrolled a cohort of 25 COVID-19 patients and took 36 blood samples from them from Day 4 post infection to Day 242 post infection. Antibodies against the virus started to decline after 20 days post infection. However, all patients continued to have memory B cells that recognized one of the two components of the virus - the spike protein and the nucleocapsid proteins. Investigators noted that the virus-specific memory B cells were present for as long as 8 months after infection… (*NDTV – PTI*)

Bamlanivimab Ineffective in Hospitalized COVID-19 Patients

Use of bamlanivimab (LY-CoV555), a monoclonal antibody for COVID-19, with remdesivir was found not to be effective for patients hospitalized with COVID-19 in a randomized trial.

Investigators noted no significant difference in sustained recovery over a 90-day period with the combination compared to remdesivir and placebo (rate ratio [RR] 1.06, 95% CI 0.77-1.47). There appeared to be no significant difference in the primary safety outcome as well. The rate of experiencing an adverse outcome (death, serious adverse events or clinical Grade 3 and 4 adverse events through Day 5) was 19% in the investigational group compared to 14% in the placebo group (odds ratio [OR] 1.56, 95% CI 0.78-3.10, p = 0.20), reported researchers in the *New England Journal of Medicine*… (*Medpage Today*)

Sex Differences in Post-CABG Mortality

A new study, published online December 23 in *JAMA Cardiology*, has revealed sex differences in mortality rates among patients undergoing coronary artery bypass grafting (CABG).

Researchers noted that 7 years following a CABG procedure, mortality was lower in men, but not in women, who had been subjected to multiple rather than single arterial grafting. On stratifying patients based on their estimated risk for death, both low-risk men and women appeared to have a lower mortality rate with multiple arterial grafting, but not high-risk patients of both sexes; this risk cut-off was different among the two genders. Women, therefore, seem to have a worse preoperative profile than men… (*Medscape*)

Ultraprocessed Food Tied to Increased CVD, Death

A longitudinal analysis of over 22,000 men and women from southern Italy has shown that those who consumed the most ultra-processed food (UPF) had the highest risk for CVD and all-cause mortality, likely driven by a diet high in sugar. High consumption of UPF in this Mediterranean cohort was found to be linked with a 58% greater risk for CVD mortality and 52% higher risk of death from ischemic heart disease (IHD) and cerebrovascular causes, independent of known risk factors for CVD, even among those who adhered to the Mediterranean diet. The findings were published online in the *American Journal of Clinical Nutrition*… (*Medscape*)

Nurse Burnout has Increased During Pandemic: Survey

Nurses and advanced practice registered nurses (APRNs) were asked to rate their burnout before the pandemic and 6 months into it, and levels reported were found to have quadrupled in some cases.

The Medscape Nurse Career Satisfaction Report 2020 gathered responses from over 10,000 nurses and APRNs in the United States and revealed that in every group, more nurses rated themselves as very or somewhat burned out in comparison with the pre-pandemic time. Survey authors noted that the burnout numbers came in the summer, before the number of patients in the fall started overwhelming hospitals across the country. Most respondents had cared for COVID-19 patients by the end of summer. CRNAs were most likely to have treated COVID-19 patients (73%), while central nervous systems were the least likely (38%)... (*Medscape*)

Spinal Benefits Seen with Secukinumab in Psoriatic Arthritis

Secukinumab was found to be effective for axial manifestations of psoriatic arthritis in a 52-week multicenter phase III study.

Investigators noted that the primary endpoint of a 20% response on the criteria of the Assessment of SpondyloArthritis international Society (ASAS20) at Week 12 was met by 63% and 66% of patients randomized to subcutaneous secukinumab, 300 mg or 150 mg every 4 weeks, in comparison with 31% in the placebo group, reported researchers in *Annals of the Rheumatic Diseases*. The odds ratios of achieving ASAS20 responses were

3.8 (95% CI 2.4-6.1) and 4.4 (95% CI 2.7-7, p < 0.0001) in the 300 mg and 150 mg groups, respectively, in comparison with placebo… (*Medpage Today*)

Total Body Irradiation or Chemotherapy Conditioning in Pediatric ALL

Survival in pediatric acute lymphoblastic leukemia (ALL) was found to improve significantly with total body irradiation (TBI) and etoposide prior to allogeneic hematopoietic stem-cell transplant (HSCT) in comparison with combination chemotherapy in a randomized trial.

Estimated overall survival (OS) at 2 years improved from 75% with chemo conditioning to 91% with TBI *plus* etoposide (p < 0.0001). As-treated analyses provided similar results irrespective of the chemotherapy conditioning regimen given to the patients. TBI was also associated with a significantly lower 2-year cumulative risk of relapse and treatment-related mortality (TRM). The incidence of acute and chronic graft-versus-host disease (GVHD) did not differ between treatment groups, reported researchers in the *Journal of Clinical Oncology*… (*Medpage Today*)

Conservative Approach to Inpatient BP Spikes could be Safer

Treating asymptomatic hypertension in patients admitted for noncardiac causes appeared to be linked with more end organ damage as compared to when it was left alone, suggests an observational study.

Such antihypertensive-treated patients were shown to have a higher incidence of subsequent inpatient acute kidney injury (10.3% vs. 7.9%, p < 0.001) and myocardial injury (1.2% vs. 0.6%, p = 0.003), compared to non-treated counterparts in a propensity-matched analysis of 4,520 patient-pairs, reported researchers online in *JAMA Internal Medicine*. Investigators noted that the associated harms were similar for oral and IV treatments and were observed across systolic blood pressure intervals. There was no group of patients whose outcomes were better with treatment… (*Medpage Today*)

ICMR Says Careless Use of Therapies may Lead to Mutations

The Indian Council of Medical Research (ICMR) has cautioned against non-judicious use of therapies that have not been established for the treatment of COVID-19 as it can result in immune pressure on the SARS-CoV-2 virus, eventually leading to mutations. ICMR Director General Balram Bhargava stated that even vaccine administration has to be carefully observed, adding that immunity breakthrough may occur because of the vaccine. He said, "Genetic mutations occur in the respiratory viruses and these minor drifts may occur from time to time but once several drifts occur it has higher transmissibility rate as it happened in the United Kingdom. So that is a point of concern although we are testing in India for virus variants regularly." (*ET Healthworld – TNN*)

First Generic of Drug Used to Treat Severe Hypoglycemia Receives FDA Approval

The US FDA has granted approval to the first generic of glucagon for injection USP, 1 mg/vial, to treat severe hypoglycemia.

The drug is also used as a diagnostic aid in the radiologic examination of the stomach, duodenum, small bowel and colon when reduced intestinal motility would be beneficial. The generic glucagon for injection is a synthetic version of human glucagon. Glucagon causes the liver to increase blood sugar levels rapidly. It also diminishes the movement of the gastrointestinal tract. The most common side effects of glucagon for injection include nausea and vomiting, a temporary escalation in heart rate, and redness and swelling of the injection site… (*FDA*)

10.4 Million Children in DRC, Northeast Nigeria, Central Sahel, South Sudan and Yemen will Suffer from Acute Malnutrition in 2021

The UNICEF has expressed concern over the health and well-being of 10.4 million children projected to suffer from acute malnutrition in 2021 in the Democratic Republic of the Congo (DRC), northeast Nigeria, the Central Sahel, South Sudan and Yemen.

All these countries or regions are experiencing appalling humanitarian crises while dealing with increasing food insecurity, a pandemic and, except for the Central Sahel, an imminent famine. In the DRC alone, 3.3 million children under five are estimated to suffer from acute malnutrition in 2021, including at least 1 million with severe acute malnutrition. In all these countries as well as in other parts, UNICEF calls on humanitarian actors on the ground and the international community to work towards expanding access to and support for nutrition, health, as well as water and sanitation services for children and their families… (*UNICEF*)

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