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News and Views

FDA Approves New Therapy for Myelodysplastic Syndromes That can be Taken at Home

The US Food and Drug Administration (FDA) has granted approval to decitabine and cedazuridine tablets for the treatment of adult patients with myelodysplastic syndromes (MDS) and chronic myelomonocytic leukemia (CMML).

This is an important advancement in the treatment options for patients with MDS who previously needed to visit a healthcare facility to receive intravenous therapy. This drug is taken as one tablet orally once daily for 5 consecutive days of each 28-day cycle… *(FDA)*

Weight Loss, Not Fiber Intake, Linked with Better A1c in Diabetes

A small study of overweight patients with type 2 diabetes revealed that consuming fewer calories resulting in weight loss of around 2 kg was tied to better glycemic control than consuming more fiber.

Investigators recruited 78 patients with type 2 diabetes who received monthly nutrition counseling about a guideline-recommended lower-calorie, healthy diet. Patients were randomized to three groups: high-fiber diet, fiber supplement or control. At 3 months, all three groups lost a similar amount of weight and had similar decline in A1c levels. However, fiber intake was not found to be associated with improved A1c levels, but weight loss was. The findings were presented recently during the virtual American Diabetes Association (ADA) 80th Scientific Sessions… *(Medscape)*

COVID-19 Lungs may be More Likely to Leak

Pneumothorax and other barotrauma was found to be more common in coronavirus disease (COVID-19) patients on invasive mechanical ventilation compared to other patients on ventilators, revealed a retrospective study.

Among invasive mechanical ventilation (IMV) patients at NYU Langone Health in New York City from March 1 to April 6, barotrauma was noted in 15% of those with COVID-19 and 0.5% of those without it ($p < 0.001$), reported researchers in *Radiology*. Barotrauma in COVID-19 independently predicted death (odds ratio [OR] 2.2, $p = 0.03$) and longer length of hospital stay (OR 1.03, $p < 0.001$)… *(Medpage Today)*

Image-guidance Tied to Improved Resection in Recurrent Colorectal Cancer

In comparison with historical controls, use of image-guidance during surgery resulted in improved rates of complete resection in locally advanced rectal cancer patients with recurrent disease, reported a single-center Dutch study.

Among patients with recurrent cancers, 78.9% achieved complete R0 resections when an image-guided navigation system was used, compared to a historical rate of 48.8% ($p = 0.047$), reported researchers in *JAMA Network Open*. No significant difference was evident among a group of patients undergoing primary surgical resection (92.9% vs. 84.2%, respectively, $p = 0.69$)… *(Medpage Today)*

Wheat could be the Most Common Food Allergen in Children

Globally, food allergies are widespread with an incidence up to 10% in Western countries in infants and a growing occurrence in developing countries. Food allergies are very common in children as compared to adults. Certain foods include more than 80% of the reaction in food allergies such as milk, egg, wheat, soy, peanut and tree nuts.

In pediatric patients, gluten-related disorders are very common. Wheat (*Triticum aestivum*) is the most extensively consumed food grain in the whole world due to its capability to grow in different climatic areas. Wheat can be responsible for a varied range of disorders that depends on allergen exposure and the underlying immunological mechanisms. Wheat is the most common food allergen seen in children and can be accountable for a number of clinical manifestations such as food-dependent exercise-induced anaphylaxis (FDEIA), contact urticaria, occupational asthma (or Baker's asthma) or rhinitis.

Wheat allergy is triggered by an immunoglobulin E (IgE)-dependent mechanism and its incidence differs as per the age and region. Several studies have explored the potential role of various external factors, which can influence the risk of developing wheat allergy, but results are still inadequate.

In children, the prognosis of IgE-mediated wheat allergy is usually favorable, as the majority of children

become tolerant by school age. Patients who had experienced an anaphylactic reaction earlier to 3 years of age and patients with higher levels of wheat- or ω-5 gliadin-specific IgE antibodies could be at higher risk of persistent wheat allergy. The present management of such patients is dietary avoidance. Currently, oral immunotherapy has been suggested for wheat allergy with promising results. Further studies are needed to create the best protocol for promoting tolerance in wheat-allergic children.

Source: Ricci G, Andreozzi L, Cipriani F, et al. Medicina (Kaunas). 2019;55(7):400.

WHO to Issue New Brief on Airborne Transmission

The World Health Organization (WHO) will issue a brief on the modes of transmission of the new coronavirus, stated a senior official.

Epidemiologist Dr Maria van Kerkhove, WHO technical lead on COVID-19, while responding to a question on an open letter by scientists calling for updating the recommendations on airborne transmission, stated that WHO welcomes interaction with the scientific community. She added that the group first wrote to the agency on 1st April and there has been 'active engagement' since. WHO is developing a scientific brief that includes the growing knowledge around this subject and it will be issued in the coming days… *(UN)*

A Favorable Lifestyle may Reduce Breast Cancer Risk Irrespective of Genetics

A favorable lifestyle was found to be associated with a reduced risk of breast cancer even among women with high genetic risk for the disease in a study of over 90,000 women.

According to the study, irrespective of genetic risk, women may reduce their risk of developing breast cancer by getting adequate levels of exercise; maintaining a healthy weight and limiting or avoiding the use of alcohol, oral contraceptives and hormone replacement therapy. The findings were published in *JAMA Network Open*… *(Medscape)*

Polymer-free Stents: 10-year ISAR-TEST-5 Results

Long-term adverse outcomes were shown to be similar for polymer-free and durable-polymer drug-eluting stents (DES) in the ISAR-TEST-5 study.

Patients randomized to the polymer-free, sirolimus- and probucol-eluting Isar DES had similar outcomes over 10 years as their peers given durable-polymer, zotarolimus-eluting Endeavor Resolute DES, reported researchers in the *Journal of the American College of Cardiology*… *(Medpage Today)*

WHO Reviewing Report Urging Updated Guidance Over Airborne Spread of Coronavirus

The WHO is reviewing a report calling for updated guidance on the novel coronavirus after over 200 scientists outlined evidence that the virus can spread in tiny airborne particles in a letter to the health agency.

In an open letter to the WHO, 239 scientists in 32 countries laid out evidence showing that floating virus particles c an infect people who inhale them. As these smaller particles can stay in the air, the scientists urged WHO to update its guidance. WHO spokesman Tarik Jasarevic said, "We are aware of the article and are reviewing its contents with our technical experts." *(Reuters)*

More Outbreaks if Exploitation of Wildlife Continues: UN

Zoonotic diseases are on the rise and will continue to increase in the absence action to protect wildlife and preserve the environment, warned UN experts.

They blame the rise in diseases such as COVID-19 on high demand for animal protein, unsustainable agricultural practices and climate change. They stated that neglected zoonotic diseases are responsible for the death of 2 million people a year. The jump of zoonotic diseases from animals to humans is driven by the degradation of the natural environment, for instance through land degradation, wildlife exploitation, resource extraction and climate change, suggested a report by the United Nations Environment Programme and the International Livestock Research Institute… *(BBC)*

REM Sleep Duration Linked with Mid-Term Mortality Risk

Less rapid eye movement (REM) sleep was found to be associated with greater mortality risk in middle-age and older adults, according to a new research.

Every 5% reduction in REM sleep was linked to a 13% higher mortality rate in older men (age-adjusted hazard ratio [HR] 1.12; fully adjusted HR 1.13, 95% confidence interval [CI] 1.08-1.19) over about 12 years, reported researchers. In a parallel analysis, middle-age women and men exhibited similar results (HR 1.13, 95% CI 1.08-1.19) over about 21 years, reported researchers in *JAMA Neurology*. According to a random forest

model, REM sleep was the most important sleep stage associated with survival… *(Medpage Today)*

Antihypertensives Tied to Reduced Risk of Colorectal Cancer

Use of angiotensin-converting enzyme (ACE) inhibitors and angiotensin receptor blockers (ARBs) for treatment of hypertension was associated with a reduced risk for colorectal cancer, suggested a large retrospective study.

According to the study, published online in the journal *Hypertension*, the use of ACE inhibitors/ARBs was linked with a 22% lower risk for colorectal cancer developing within 3 years after a negative baseline colonoscopy… *(Medscape)*

WHO Discontinues Hydroxychloroquine and Lopinavir/Ritonavir Treatment Arms for COVID-19

The WHO has accepted the recommendation from the Solidarity Trial International Steering Committee to terminate the hydroxychloroquine and lopinavir/ritonavir arms in the trial.

The recommendation was based on the evidence for hydroxychloroquine vs. standard-of-care and for lopinavir/ritonavir vs. standard-of-care from the Solidarity trial interim results, as well as a review of the evidence from all trials presented at the WHO Summit on COVID-19 research and innovation. The interim results suggest that hydroxychloroquine and lopinavir/ritonavir yield little or no reduction in the mortality among hospitalized COVID-19 patients, compared to standard of care… *(WHO)*

Hundreds of Scientists Say Coronavirus is Airborne

Hundreds of scientists have said that there is evidence to show that the novel coronavirus in smaller particles in the air can infect people. The scientists have called for the WHO to revise its recommendations, *The New York Times* reported.

In an open letter to the agency, 239 scientists in 32 countries laid out the evidence showing that smaller particles can infect people. Whether carried by large droplets, or by smaller exhaled droplets that may drift through a room, the coronavirus is borne through air and can infect people when inhaled, said the scientists, as per the *NYT*… *(Reuters)*

Epilepsy After TBI Tied to Worse 12-month Outcomes

The severity of head injury in traumatic brain injury (TBI) has a significant association with the risk of developing post-traumatic epilepsy (PTE) and seizures, and PTE itself further impairs outcomes at 12 months, suggests an analysis of a large, prospective database.

Of the 1,493 patients with TBI, 2.7% were determined to have PTE. Presenting Glasgow Coma Scale (GCS) score was a major risk factor for the development of PTE. Among those with scores of <8, indicating severe injury, the rate of PTE was 6% at 6 months and 12.5% at 12 months. Those with TBI presenting with GCS scores between 13 and 15, suggesting minor injury, had an incidence of PTE of 0.9% at 6 months and 1.4% at 12 months. The findings were presented at the virtual edition of the *American Association of Neurological Surgeons Annual Meeting*… *(Medscape)*

Apgar Score Provides Prognostic Information for Neonatal Survival

Preterm infants with lower Apgar scores had an increased risk of neonatal death, suggested a population study in Sweden.

Among babies born at 36 weeks or earlier, there was a higher risk of mortality among those born at lower gestational age and as Apgar scores decreased, with scores at 5 and 10 minutes predicting neonatal outcomes, reported researchers in the *New England Journal of Medicine*… *(Medpage Today)*

Pooled Data Favor Short-course HCV Treatment

Eight weeks of glecaprevir-pibrentasvir was found to be efficacious and well-tolerated in treatment-naive patients with all hepatitis C virus (HCV) genotype infections, with or without cirrhosis, reported researchers online in *Clinical Gastroenterology and Hepatology*.

A post-hoc analysis from eight pooled trials involving over 2,300 patients revealed that 8-week treatment with glecaprevir-pibrentasvir was associated with sustained viral response rates of 97.6% at 12 weeks in an intent-to-treat (ITT) population and 99.3% in a modified ITT population, irrespective of cirrhotic status… *(Medpage Today)*

Sleep Troubles in Infancy Linked to Later BPD, Psychosis

Some sleep patterns in infancy were found to be associated with psychotic experiences and borderline personality disorder (BPD) symptoms in adolescence, reported a cohort study from England.

Among 7,155 mother-child pairs, children whose mothers reported that they had irregular sleep routines in childhood, and frequent night awakenings at 18 months, appeared to be significantly more likely

to have psychotic symptoms by 12-13 years of age compared to children who did not wake up frequently at night (OR 1.13, 95% CI 1.01-1.26, p = 0.03), reported researchers in *JAMA Psychiatry*. In comparison with children with regular sleep patterns, children who slept less at night (OR 0.78, 95% CI 0.66-0.92, p = 0.004) and had later bedtimes at 3.5 years (OR 1.32, 95% CI 1.09-1.60, p = 0.005) exhibited associations with BPD symptoms in adolescence… *(Medpage Today)*

Better Pregnancy Spacing would Help Those with Gestational Diabetes

Women with a history of gestational diabetes had a 50% higher likelihood of having a short interval between pregnancies (18 months or less) compared with women without gestational diabetes, reported a new study.

The findings point to a possible modifiable risk factor to improve outcomes, said lead researcher Ronald Anguzu, MBChB, MPH, Medical College of Wisconsin, Milwaukee, presenting the results during the virtual American Diabetes Association (ADA) 80th Scientific Sessions… *(Medscape)*

Stretching Regimen Tied to Vascular Benefits

Leg stretching exercises were found to be associated with improved vascular function in a small study published in the *Journal of Physiology*.

Signs of local and systemic vascular improvement were observed after study participants were subjected to 12 weeks of training in passive stretching. There was a 30% increase in femoral change in blood flow, 25% rise in popliteal artery flow-mediated dilatation, 8% increase in brachial artery flow-mediated dilatation, 25% reduction in central arterial stiffness, 17% decrease in peripheral arterial stiffness, 4% decrease in systolic blood pressure (BP) and an 8% fall in diastolic BP. Controls randomized to no stretching had no significant changes in these measures… *(Medpage Today)*

Transfats from Processed Foods may Increase Ovarian Cancer Risk

UN scientists have identified a possible link between processed and fried foods containing so-called 'transfats' and ovarian cancer.

The International Agency for Research on Cancer (IARC) issued the announcement following a study of around 1,500 patients suffering from the disease. "This is the first Europe-wide prospective study showing a relationship between intake of industrial trans fatty acids and development of ovarian cancer," added the scientist from IARC, a part of the *WHO… (UN)*

FDA Approves New HIV Treatment for Patients with Limited Options

The US FDA has granted approval to fostemsavir to treat adult patients who have run out of treatment options.

The oral drug has been approved for adults whose human immunodeficiency virus (HIV) infection could not be successfully treated with other therapies owing to resistance, intolerance or safety considerations… *(Reuters)*

Subclinical Hypothyroidism Seems Common in Women with Miscarriage

Among women with a history of miscarriage or subfertility, the prevalence of subclinical hypothyroidism (SCH) appears to be about 20% using a thyrotropin (TSH) cut-off of 2.5 mIU/L, suggested a prospective observational study.

Using accepted reference ranges, undiagnosed overt hypothyroidism was identified in 0.2%, overt hyperthyroidism in 0.3%, severe SCH (TSH >10 mIU/L) in 0.2% and SCH (TSH >4.5 mIU/L) in 2.4%. Reducing the upper limit of TSH to 2.5 mIU/L, as recommended by international societies for 'high-risk' women, such as those with recurrent pregnancy loss or those undergoing assisted reproductive technology, would categorize 16-20% of women as having SCH, reported researchers. The findings were published in the *Journal of Clinical Endocrinology & Metabolism… (Medscape)*

Parental Behavior Linked with Greater Disability in Persistent Pediatric Headache

Parental attitudes and behavior predict outcomes in children with new daily persistent headache (NDPH), suggests new research.

Researchers at Boston Children's Hospital in Waltham, Massachusetts, noted that the degree of disability experienced by these children had a direct link with the levels of parental catastrophizing, fear of pain and protective behavior. Parents' rating of their own distress was also independently associated with their level of protective behavior. The findings were presented at the virtual American Headache Society (AHS) Annual Meeting 2020… *(Medscape)*

CDC Adds Three New Symptoms of COVID-19 to Existing List

The US Centers for Disease Control and Prevention (CDC) has added three new symptoms of the COVID-19 to the existing list.

Congestion or runny nose, nausea and diarrhea have been added to the list of 12 symptoms now. Symptoms that are already there in CDC's list include fever or chills, cough, shortness of breath or difficulty in breathing, fatigue, muscle or body aches, headaches, loss of smell or taste and sore throat. The agency stated, "This list does not include all possible symptoms. CDC will continue to update this list as we learn more about COVID-19." *(HT)*

Risk Factors for Depression in Postmenopausal Women

A considerable proportion of postmenopausal women experience depression, and the risk is increased by factors including physical disabilities and having many children, suggests new research.

In a cross-sectional study of 485 postmenopausal women surveyed with questionnaires, about 41% were found to have depression. Factors that significantly increased the risk included alcohol consumption (OR 11.772, p = 0.003), history of illness requiring continuous medication (OR 3.579, p = 0.001), presence of physical disability (OR 2.242, p = 0.001), history of any mental disorder with a physician's diagnosis (OR 4.213, p = 0.001), having four or more living children (OR 4.174, p = 0.001). The findings were published online in *Menopause… (Medpage Today)*

Fish Oil and Vitamin D not Helpful in Knee OA

Dietary supplementation with vitamin D or fish oil failed to relieve chronic knee pain in older adults, suggested a secondary analysis of data from the large randomized VITAL trial.

Baseline pain scores on the 100-point Western Ontario and McMaster Universities (WOMAC) Arthritis Index were 35.4 among patients receiving vitamin D and 36.5 for those given placebo. At the time of last follow-up, after over 5 years, mean WOMAC pain scores in the two groups were 32.7 and 34.6, respectively. There was no statistically significant difference in pain scores between the vitamin D and placebo groups at any time during the trial, reported researchers in *Arthritis & Rheumatology*. Among patients receiving marine ω-3 fatty acids or placebo, WOMAC pain scores at baseline were 36.5 and 35.4, and at the final follow-up visit, the scores were 33.6 in the fish oil group and 33.7 in the placebo group. There appeared to be no significant differences in pain scores between the two groups at any time point… *(Medpage Today)*

Major Breakthrough in Attempts to Control Diseases Spread by Mosquitos

The UN nuclear agency (International Atomic Energy Agency [IAEA]) announced a key development in the efforts to boost technology aimed at curbing disease-carrying mosquitos, and control dengue, yellow fever and Zika.

A study revealed that the use of a specialized drone, developed by IAEA and partners, to release thousands of male mosquitoes, sterilized using radiation, seems effective. Several of the sterilized males mate with females, who then produce no offspring, thus reducing the mosquito population over time. The drones are cheaper compared to manual ground releases, and cover a much wider area… *(UN)*

DPP1 Inhibitor Shows Promise in Noncystic Fibrosis Bronchiectasis

Treatment with the investigational anti-inflammatory drug brensocatib led to significant delay in the time to exacerbation in patients with noncystic fibrosis bronchiectasis, suggested new research.

Phase II results from the multicenter WILLOW trial, including 256 adults with at least two documented bronchiectasis exacerbations over the past year, revealed that both doses of the oral drug tested (10 and 25 mg/day) delayed the time to first pulmonary exacerbation over the 24-week treatment period compared with placebo. The findings were presented at an American Thoracic Society (ATS) 2020 virtual session… *(Medpage Today)*

IL-7 may Help Severe COVID-19 Patients

Administration of interleukin 7 (IL-7) immunotherapy to critically ill COVID-19 patients was shown to be associated with significantly restored lymphocyte counts in a case series in Belgium.

In all, 12 critically ill COVID-19 patients with low lymphocyte levels were administered IL-7, and were compared with a control group of 13 patients who were provided usual care. Patients given IL-7 had over twofold greater lymphocyte levels compared to controls at Day 30, reported researchers in *JAMA Network Open*. The mortality rate was similar in the two groups; however, those given the IL-7 therapy had a lower proportion of infections at Day 30 compared with controls (50% vs. 85%, respectively)… (*Medpage Today*)

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