

Medical News

More than 80 cases of monkey pox have been confirmed in at least 12 countries. Reuters

The World Health Organization has said another 50 suspected cases are being investigated - without naming any countries - and warned that more cases are likely to be reported.

Infections have been confirmed in nine European countries, as well as the US, Canada and Australia.

Monkey pox is caused by the monkey pox virus, a member of the same family of viruses as smallpox and is most common in remote parts of Central and West Africa. It is a rare viral infection which is usually mild and from which most people recover in a few weeks, according to the UK's National Health Service. There are two main strains of virus - west African and central African.

Two of the infected patients in the UK travelled from Nigeria, so it is likely that they are suffering from the West African strain, which is generally mild. Another case was a healthcare worker who picked up the virus from one of the patients. More recent cases do not have any known links with each other, or any history of travel. It appears they caught it in the UK from spread in the community. Initial symptoms include fever, headaches, swellings, back pain, aching muscles.

Once the fever breaks a rash can develop, often beginning on the face, then spreading to other parts of the body, most commonly the palms of the hands and soles of the feet. The rash, which can be extremely itchy or painful, changes and goes through different stages before finally forming a scab, which later falls off. The lesions can cause scarring. The infection usually clears up on its own and lasts between 14 and 21 days. Monkey pox can be spread when someone is in close contact with an infected person. The virus can enter the body through broken skin, the respiratory tract or through the eyes, nose or mouth. It can also be spread by contact with infected animals such as

monkeys, rats and squirrels, or by virus-contaminated objects, such as bedding and clothing. The virus does not spread easily between people and the risk to the wider public is said to be very low. There is no specific vaccine for monkey pox, but a smallpox jab offers 85% protection since the two viruses are quite similar. The UK has bought doses of the smallpox vaccine, but it is not clear how many jabs might be given. Antiviral drugs may also help.

So far, public health agencies in Europe have confirmed cases in the UK, Spain, Portugal, Germany, Belgium, France, the Netherlands, Italy and Sweden. In a statement on Friday, the WHO said that the recent outbreaks "are atypical, as they are occurring in non-endemic countries". It said it was "working with the affected countries and others to expand disease surveillance to find and support people who may be affected".

It is not yet clear why this unusual outbreak is happening now. One possibility is that the virus has changed in some way, although currently there is little evidence to suggest this is a new variant. Another explanation is that the virus has found itself in the right place at the right time to thrive.

Monkey pox may also spread more easily than it did in the past, when the smallpox vaccine was widely used. WHO's Europe regional director Hans Kluge warned that "as we enter the summer season... with mass gatherings, festivals and parties, I am concerned that transmission could accelerate". He added that all but one of the recent cases had no relevant travel history to areas where monkey pox was endemic.

The first case of the disease in the UK was reported on 7 May. The patient had recently travelled to Nigeria, where they are believed to have caught the virus before travelling to England, the UK Health Security Agency said. There are now 20 confirmed cases in the UK, Health Secretary Sajid Javid said on Friday. Authorities in the UK said they had bought stocks of

the smallpox vaccine and started offering it to those with "higher levels of exposure" to monkey pox. Spanish health authorities have also reportedly purchased thousands of smallpox jabs to deal with the outbreak, according to Spanish newspaper El País.

Australia's first case was detected in a man who fell ill after travelling to the UK, the Victorian Department of Health said.

In North America, health authorities in the US state of Massachusetts confirmed that a man has been infected after recently travelling to Canada. He was in "good condition" and "poses no risk to the public", officials said.

Biotin: Good for Hair and Nails, Bad for Thyroid Lab Tests

Medscape

A sizeable proportion of people use cosmetic products containing enough biotin to interfere with several laboratory measurements, including those of thyroid function, new research finds. The clinical takeaway, two endocrinologists told *Medscape Medical News* during the American Association of Clinical Endocrinology (AACE) Annual Meeting 2022, is that if an asymptomatic patient's thyroid test comes back suggesting hyperthyroidism, ask if they've been using hair, skin, or nail products containing biotin. If they have, advise them to stop taking the supplement for a week and then re-measure their thyroid hormone levels. Chances are, they'll normalize.

The new study conducted in a rural Michigan family medicine clinic is only the second to examine the prevalence of use of products containing high-dose biotin (vitamin B₇), which interferes with a variety of biotin-based laboratory immunoassays. In 2017, and again in 2019, the US Food and Drug Administration issued warnings about biotin interference causing falsely low troponin readings leading to missed diagnosis of myocardial infarction. Biotin interference can also result in falsely elevated triiodothyronine and thyroxine, and falsely low thyroid stimulating hormone, mimicking results seen in hyperthyroidism (Graves disease). This can lead to

unnecessary workup and treatment, with associated costs and side effects. About 7% of Patients Found to Be Taking High-Dose Biotin.

Jenna Bernson, MD, of Michigan State University, presented a poster at the AACE meeting detailing the new findings from a survey of 249 people seen at the rural Michigan clinic.

In all, 7.2% reported taking more than 5 mg daily of biotin. That proportion is similar to the 7.7% previously reported in an outpatient setting and 7.4% as indicated by serum levels of patients who presented to an emergency department, both reported in 2018 in a single paper from the Mayo Clinic. Study coauthor Saleh Aldasouqi, MD, also of Michigan State University, told *Medscape Medical News*: "We know people take biotin as a hair product, a skin product, and as an energy supplement. Our hypothesis was that maybe biotin use might be less in rural women, but it's about the same."

The biotin dose found in vitamin supplements, about 50 µg, is roughly the daily requirement for the human body and doesn't typically interfere with lab results. The problem comes with the far higher doses used in cosmetic products, Aldasouqi said. "The typical beauty tablet has 5 to 10 mg, so taken twice a day, that's 10,000 µg. That is what would interfere with the labs." Advise Patients to Stop Taking Biotin a Week Before Lab Work.

"It's very important that we ask our patients about biotin," added Cheryl Rosenfeld, DO, an endocrinologist in private practice in Parsippany, New Jersey. "I tell my patients, if it's helping you and it's growing your hair and nails and you look great, by all means, you can take it. You just have to stop it a week before you get your labs done, just to be safe," she told *Medscape Medical News*.

FDA approves First Drug for Eosinophilic Esophagitis

Megan Brooks

Medscape

The US Food and Drug Administration (FDA) has approved dupilumab (Dupixent, Regeneron) to treat eosinophilic esophagitis (EoE) in adults and children aged 12 years and older weighing at least 40 kg. EoE

is a chronic inflammatory disorder driven by type 2 inflammation that damages the esophagus and causes difficulty swallowing and eating. Dupilumab is a monoclonal antibody that acts to inhibit part of the inflammatory pathway. It's the first drug to be approved by the FDA for EoE. In a phase 3 trial, dupilumab 300 mg weekly significantly improved signs and symptoms of eosinophilic esophagitis compared to placebo, underscoring the role of type 2 inflammation in this disease, Regeneron says in a news release.

According to the company, there are roughly 160,000 patients in the US living with EoE who are currently using treatments not specifically approved for the disease. Of those patients, about 48,000 continue to experience symptoms despite multiple treatments. "As researchers and clinicians have gained knowledge about eosinophilic esophagitis in recent years, more cases of the disorder have been recognized and diagnosed in the US," Jessica Lee, MD, director of the Division of Gastroenterology in the FDA's Center for Drug Evaluation and Research, said in an FDA news release. The approval of dupilumab will "fulfill an important unmet need for the increasing number of patients with eosinophilic esophagitis," Lee said. The efficacy and safety of dupilumab in EoE was demonstrated in a randomized, double-blind, parallel-group, multicenter, placebo-controlled trial that included two 24-week treatment periods (parts A and B) that were conducted independently in separate groups of patients. In both part A and B, patients received dupilumab 300 mg or placebo every week. In part A of the trial, 60% of the 42 patients who received dupilumab achieved the predetermined level of reduction of eosinophils in the esophagus, compared to 5% of the 39 patients who received placebo, the FDA said.

Patients who received dupilumab also experienced an average improvement of 22 points in the Dysphagia Symptom Questionnaire (DSQ) score, compared to 10 points for patients who received placebo. In part B, 59% of the 80 patients who received dupilumab achieved the predetermined level of reduction of

eosinophils in the esophagus, compared to 6% of the 79 patients who received placebo. Patients who received dupilumab also experienced an average improvement of 24 points in their DSQ score, compared to 14 points for patients who received placebo.

"Assessments incorporating the perspectives from patients with EoE supported that the DSQ score improvement in patients who received Dupixent in the clinical trial was representative of clinically meaningful improvement in dysphagia," the FDA noted. "Treatment for patients with eosinophilic esophagitis can be challenging, particularly with no previously approved medications," Evan Dellon, MD, principal investigator for the phase 3 trial, said in the company news release. "Now, patients and their doctors have a treatment option available as part of their management plan that has the potential to control symptoms, improve inflammation, and heal the changes in the esophagus caused by this progressive and burdensome disease," added Dellon, who is professor of medicine in the Division of Gastroenterology and Hepatology at the University of North Carolina School of Medicine, Chapel Hill.

The FDA granted dupilumab priority review and breakthrough therapy designations for EoE. Dupilumab is already approved in the US for treatment of moderate to severe atopic dermatitis in adults and children aged 6 years and older whose disease is not adequately controlled by topical prescription therapies or for whom those therapies are not advisable.

The drug is also approved as an add-on maintenance treatment for adults and children aged 6 years and older with certain types of moderate to severe asthma and as an add-on maintenance treatment for adults with inadequately controlled chronic rhinosinusitis with nasal polyposis.

A Cup of Cranberries a Day Tied to Better Memory

Medscape

Megan Brooks

For healthy middle-aged and older adults, adding cranberries to the diet may help improve memory and

brain function, in addition to lowering LDL cholesterol, new research suggests.

Results from a randomized, placebo-controlled trial of adults aged 50-80 years showed that consuming freeze-dried cranberry extract, which is equal to one cup of fresh cranberries, for 12 weeks was associated with improved episodic memory. This coincided with increased blood flow to key areas of the brain that support cognition. "This study reports for the first time the effect of long-term cranberry supplementation [as a] 12-week placebo-controlled intervention upon cognitive performance and brain health," lead investigator David Vauzour, PhD, University of East Anglia Norwich Medical School, United Kingdom, told *Medscape Medical News*. The findings were published online today in *Frontiers of Nutrition*.

Cranberries are particularly rich in (poly)phenols such as anthocyanins, proanthocyanidins (both A- and B-type), flavonols, and hydroxycinnamic acids. These compounds are known to have antioxidant and anti-inflammatory effects, and are increasingly recognized for their neuroprotective potential. High-molecular-weight polyphenols such as proanthocyanidins also affect the gut microbiota and may improve cognition by modulating the gut-brain axis. In the current study, 60 healthy adults (mean age, 65 years) consumed cranberry powder that was equivalent to 100 g of fresh cranberries or matching placebo for 12 weeks. Before and after the intervention, all participants underwent a battery of cognitive tests in combination with comprehensive biochemical and neuroimaging assessments. The total concentration of (poly)phenol metabolites in plasma increased by 1.82 μM in the cranberry group, with no increase observed in the placebo group. At baseline, there were no significant differences in regional brain perfusion between the cranberry and placebo groups.

Mixed linear modeling controlling for age and education showed an increase in perfusion between baseline and follow-up in the cranberry group compared with a relative decrease in perfusion over time in the placebo group. In the cranberry group,

increased regional perfusion was observed in the right entorhinal cortex, the accumbens area, and the caudate. This was accompanied by significantly improved visual memory, as assessed by delayed recall on the Rey Complex Figure Test ($P = .028$). However, the cranberry intervention did not improve other neurocognitive domains, such as working memory and executive functioning.

The cranberry group did show a significant decrease in LDL cholesterol levels, suggesting that cranberries can improve vascular health and may in part contribute to the improvement in brain perfusion and cognition, the investigators note.

PSIM News:

3rd Annual Conference of PSIM from 6th to 8th May at Movenpick Hotel, Karachi

3rd annual successful conference of PSIM took place at Movenpick Hotel Karachi from 6th to 8th May with a slogan of Evidence Based Medicine Apnao. It turned out to be a successful n productive interacting platform for the medical fraternity. A well organized event with Comprehensive program and participation of both national n international medical experts from different fields made it a huge success, paving the way to a bright future.

SOPs for the prevention of COVID-19 were strictly implemented. The conference was preceded by a press conference where the president PSIM prof. javaid akram highlighted the point of self-medication in people and briefed the media about aim n motto of PSIM n 3rd annual conference.

“Leadership in healthcare” an insightful session in 3rd Annual Conference of Pakistan Society of Internal Medicine in collaboration with Getz Pharma and Royal College of Physicians London proved to be a mark of excellence and blaze with acclaimed speakers.

Fellowship Convocation of - 3rd Annual Conference of PSIM also held. The Pakistan Society of Internal Medicine (PSIM) awarded its honorary fellowships to philanthropist the late Abdus Sattar Edhi, public healthcare professionals Prof Shahzad Ali Khan and Prof Dr Abdul Bari Khan and leading microbiologist Dr Farhan Essa in addition to the degrees awarded to

eligible fellows. State of the art presidential lecture was delivered by prof. Javaid Akram.

To Encourage and highlight the importance of research in post graduate residents and young consultants , the 2nd PSIMRA Research Awards Ceremony & Presentations in collaboration with PharmEvo Research Forum also took place where the top three winners from each category were awarded with prize money n certificates.

All the festivities of 3rd annual conference came to an end on 3rd day with a closing Annual general body meeting for some amendments and reforms. Stall of journal of PSIM was also functional with a huge interest from local medical experts.

"Learning is a never ending process" and its true depiction is from the platform of Pakistan Society of Internal Medicine in the form of an affirmative program of a no. of Post conference workshops after the successful completion of 3rd annual conference covering all the spheres of internal medicine. Medical fraternity from all the provinces is actively working on daily basis for conductance of these scheduled workshops at different centers.

With this triumphant accomplishment of 3rd annual conference at the hub of knowledge, Karachi, PSIM has proved to be a body made for the revival of lost glory of internal medicine as Medicine aims to promote and maintain health and wellbeing.



2ND PSIMRA

PAKISTAN SOCIETY OF INTERNAL
MEDICINE RESEARCH AWARD

Congratulations to all the successful candidates who participated & won 2nd Pakistan Society of Internal Medicine Research Award (PSIMRA) 2022 held on 3rd Annual Conference of Pakistan Society of Internal Medicine at Karachi on 6-8 May 2022.



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Photographs of 3rd Annual Conference at Karachi



