Monkeypox Neurologic Complications May Be Similar to Smallpox

Spring 2022 saw the emergence of a global outbreak of monkeypox virus infections, affecting more than 70,000 people in more than 107 countries by early October of this year. A recent Review article in JAMA Neurology details neurologic symptoms of both monkeypox and smallpox. Although smallpox has been eradicated, its complications “may be relevant to monkeypox,” the authors noted.

The smallpox and monkeypox viruses are both orthopoxviruses, and patients with monkeypox may exhibit milder symptoms than those associated with the smallpox virus. Clinicians should be prepared to treat all known complications of orthopoxviruses, according to the Review authors, and monkeypox should be considered in high-risk populations who present with neurologic syndromes.

Monkeypox and smallpox have similar clinical features, with an incubation period from 4 to 21 days. The first phase of monkeypox infection includes fever, headache, chills, sweats, sore throat, myalgias, prostration, and lymphadenopathy. Lymphadenopathy differentiates monkeypox from smallpox and other viral rash illnesses, including chickenpox. The rash phase of monkeypox lasts 2 to 4 weeks, and a differential diagnosis should also include herpes simplex virus type 1, syphilis, and molluscum contagiosum virus.

Frequent neurologic symptoms of monkeypox include headaches and mood disturbances—including depression and anxiety—and neuropathic pain. Monkeypox rarely causes encephalitis; in smallpox, encephalitis occurs in 1 in 500 cases. Other known smallpox neurologic complications include headaches, backaches, delirium, encephalopathy, and febrile seizures among children younger than 5 years.

No antiviral medications for monkeypox have been evaluated in clinical trials. The most promising medication to date is tecovirimat, which is approved by the US Food and Drug Administration for smallpox treatment. Other drugs that may be effective against monkeypox are brincidofovir and cidofovir. Pain management involves topical agents, oral medications, or nerve blocks, while painful lesions may be treated with antiviral therapy.

Although few major neurologic complications have been reported with the current monkeypox outbreak, the authors advised clinicians to “be prepared for the possibility of viral encephalitis, myelitis, ADEM [acute disseminated encephalomyelitis], Guillain-Barré syndrome, neuropathic pain, and others, and treat them accordingly.” They noted that “particular attention should be paid to patients with immunocompromised conditions, such as HIV/AIDS....”

Almost All “Natural” Skin Care Products Contain Contact Allergens

Soaps, lotions, and fragrances that are advertised as “clean” and “natural” may still cause skin issues, a research letter in JAMA Dermatology suggests. Researchers who analyzed 1651 so-called natural personal care products (NPCPs) found that most contained ingredients that can lead to allergic contact dermatitis. The incidence of the skin disease related to personal care products has increased 2.7-fold between 1996 and 2016.

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Researchers at Stanford University School of Medicine compiled product ingredients from NPCPs sold online at 3 major retailers: Target, Walgreens, and Whole Foods Market. Ingredients were cross-referenced with the 191 contact allergens in the Contact Allergen Management Program (CAMP) database.

Of the 1651 NPCPs, only about 6% had no contact allergens. The remaining 94% had at least 1 contact allergen, and about 90% contained 1 or more contact allergens from among the 100 allergens that most frequently cause positive reactions. The average number of contact allergens per product was 4.5.

The study identified 73 unique allergens, appearing 7487 times on ingredient lists.

The authors concluded that clinicians may want to educate patients that despite advertising “natural” ingredients, personal products—including those with botanical extracts—can contain contact allergens.

Perioperative Gabapentin Linked to Harms for Older Adults

For older adults, the use of gabapentin to manage pain after major surgery can lead to adverse events in the hospital. Perioperative gabapentin has increasingly been added to analgesia regimens to reduce opioid use among surgical patients. But a study in JAMA Internal Medicine casts doubt on the drug’s benefit for people aged 65 years or older.

The cohort study used data from the all-payer Premier Healthcare Database, which covers approximately 25% of annual inpatient admissions in the US. Perioperative gabapentin was used by 12.3% of 967,547 patients through postsurgery day 2.

The analysis included 118,936 pairs of older adult perioperative gabapentin users and nonusers. Compared with nonusers, patients who used gabapentin in the hospital had a modestly increased risk of delirium, new antipsychotic use, and pneumonia. There was, however, no difference in rates of deaths in the hospital between the 2 groups.

The risk of delirium among gabapentin users was greater in subgroups with a higher number of comorbidities and with chronic kidney disease. The researchers also found that a higher gabapentin dose was associated with progressively increased risk of delirium and pneumonia.
but not with new antipsychotic use and in-hospital death.

The authors advised that physicians should not routinely prescribe gabapentin for perioperative pain management to older adults. And for older adults who receive gabapentin for analgesia, “daily assessment of the appropriateness of gabapentin use may be necessary to avoid unintended harm,” they concluded.

**Earlier Bedtimes Help Kids Get More Sleep**

A practical but effective approach to getting children to sleep longer is to put them to bed earlier, according to a systematic review and meta-analysis of nonpharmacological sleep interventions for healthy children. Most children today are sleep deprived. Only a third or fewer children get the recommended amount of sleep per night—11 to 14 hours per night for toddlers, 10 to 13 hours for preschool-aged children, 9 to 11 hours for school-aged children, and 8 to 10 hours for teenagers.

The investigators pooled results from 45 randomized clinical trials, which included 13,539 children who ranged in age from 18 months to 19 years. Overall, the sleep interventions led to only 10.5 minutes of longer sleep duration. There were no significant differences in the trials’ effects based on the intensity of the intervention, use of environmental change to support longer sleep, or whether behavioral theory was used in the intervention’s design.

However, interventions that included setting earlier bedtimes resulted in 47 more minutes of sleep per night. Only 3 trials showed that earlier bedtimes were effective, but the effect was similar for children in primary school and secondary school. Lengthening time asleep by 47 minutes could improve children’s cardiometabolic health, mental health, and well-being, with benefits extending into adulthood, the authors suggested.

The findings appeared in *JAMA Pediatrics.*

— Anita Slomski

**Note:** Source references are available through embedded hyperlinks in the article text online.