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BRIEF19

A daily review of covid-19 research and policy.

RESEARCH BRIEFING

Can I see my ENT during covid-19? Yes. But will they see you? Probably.

Elective medical procedures and routine visits to healthcare providers have resumed in some areas of the United States. While there is a wide array of what may be considered "elective," many questions have come up regarding the safety of these visits. As we inch closer to the Fall, cold and flu season will once again be upon us. The challenges this poses to patients and the medical system as a whole are difficult to fully anticipate. Ear, Nose, and Throat physicians (otorhinolarygnologists, or otolaryngologists "for short") may be particularly concerned about whether treating their patients may expose them to infection from their patients who may have symptomatic or asymptomatic SARS-CoV-2 infection.

Two articles in *JAMA Otolaryngology* released this morning discuss relevant issues. The first article is a *Research Letter* that describes the ENT findings of three deceased patients who died of covid-19. During autopsy, the pathologists performed viral testing on remnants of the middle ears and the mastoid bones, a part of a skull bone (the temporal bone) that sits behind the ear and can rarely become infected if an untreated serious infection of the middle ear spreads.

One patient in the study had no evidence of SARS-CoV-2 virus in the middle ear or mastoid. Anther had virus isolated from just the middle ear on the right side only. The last patient had virus detected in both middle ears and in both mastoid bones. This does not imply that covid-19 patients have previously under-appreciated rates of ENT-related symptoms. Rather, these results imply that ENTs and other healthcare professionals should take appropriate precautions whenever an otologic (ear) procedure is being performed, as viral particles may be shed through the ear canal and could be infectious. Testing of all patients is recommended.

In the second article, a *Viewpoint* written by ENT physicians, experts opine on whether nasal irrigation is safe in the covid-19 era. In general, nasal irrigation to "flush out clogged nasal passages" is considered safe and effective by the US Food and Drug Administration with one major caveat: never use tap water which can contain infectious bacteria, amoebas, and protozoa, all of which can cause illness ranging from uncomfortable to serious. Only use sterile, filtered (distilled) or boiled water. In addition to the removal of bothersome mucous, nasal irrigation might actually be beneficial in treating upper respiratory infections simply by virtue of moving things around. Irrigation removes mucous (and with it, some highly concentrated virus). Irrigation also pushes mucous into the digestive tract. Unpleasant as that may sound, we barely notice this occurring at low rates all the time. The movement of small amounts of mucous into the gastrointestinal tract exposes viral particles to environments that they cannot survive.

However, there is debate over what fluid to use for nasal irrigation and whether certain topical medicines and other substances may kill viruses, including the coronavirus that causes covid-19. Saline is fairly common though experts debate whether solutions with lower (0.9 percent) or higher (3 percent, or "hypertonic saline") salt concentrations are preferable. Solutions with more salt may be advantageous because they draw water out of cells that line nasal passages, making the mucous less viscous and easier to clear. Some lab studies have shown 3 percent saline could potentially cause burns, but in live humans, that hasn't been shown to occur.

Topical steroids are also discussed in the article, but no definitive answers are given. Prior reviews found no benefit, but these studies did not examine all mechanisms of delivery.

A common question that physicians are asked is whether topical substances placed in the nasal passage might protect individuals from becoming infected with SARS-CoV-2. In particular a topical antiseptic called "Betadine" (Povidone-iodine) has been suggested. Betadine is often used to clean the skin of a patient before a surgical incision is made. While some studies have shown that Betadine can decrease the concentration of coronavirus particles (i.e. it kills virus), these studies were not done on the novel virus that causes covid-19. But more important than that, there is concern that substances like Betadine might actually be caustic to the lining of the nasal passages. If the chemicals cause damage to the lining of the upper respiratory tract, it might actually be akin to the lowering of an important defense against viral intrusion. There is indeed such a thing as "too much of a good thing." The authors argue that lower concentrations of Betadine might prevent this from occurring. The question is, are those lower concentrations effective in killing SARS-CoV-2? That has not been directly studied.

–Jeremy S. Faust MD MS

POLICY BRIEFING

New plans to counter hoarding.

Throughout the pandemic there has been a predictable pattern with medical therapies: announcement of potential efficacy is followed by a spike of "panic buying" and a subsequent national shortage. Novel therapies triggered less of this, as supplies tend to become allocated as they are produced. However, for treatments previously used for other conditions, like hydroxychloroquine for arthritis and lupus, or dexamethasone for a variety of conditions, hoarding of previously manufactured drugs can make them suddenly almost impossible to find.

Early covid-19-related legislation created pharmaceutical reporting requirements to the Food and Drug Administration for any medication determined to be important during the pandemic. The rules require companies to track anticipated supply shortages. However, obscure supply chains and a lack of national coordination has made accurate accounting difficult. Similarly, while legislation required weekly updates from the Department of Health and Human Services (HHS) on medical supplies and disbursement in the National Stockpile, Congressional leadership has said they still do not know where everything is being sent.

To increase transparency, many experts are calling for a more robust, centralized database with state and local-level granularity regarding supply allocation and use. They argue that this level of detail is necessary so that providers and hospitals can recognize the potential for local shortages and find additional sources to mitigate the tidaling levels seen so far. *Bloomberg News*

—Joshua Lesko, MD