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Health Matters

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Atropine eye drops administered sublingually to control drooling

Excessive drooling can be socially embarrassing for sufferers but also carries risks for aspiration pneumonia, facial chapping, infection and dehydration. In addition, for people who have swallowing problems, drooling can cause choking, lung irritation and sleep disturbances. And if drooling becomes pronounced during end-of-life care it can be very distressing for patients and family members alike.

Fortunately, recent studies have shown atropine eye drops to be a promising option for the treatment of drooling, and can be used in place of botulinum toxin injections (Botox), oral anticholinergics, such as trihexyphenidyl or amitriptyline, and/or surgery.

In summary, the benefits of Atropine 0.1% eye drops include that:

- The drops can be administered sublingually
- One to two drops per dose provides relief within minutes and lasts four to six hours
- The medication can be used PRN
- Drops are inexpensive and have a good safety profile.

More about sialorrhea (excessive saliva)

Drooling can accompany many conditions from Parkinson's and ALS to cerebral palsy. Drooling can also be drug induced by medications, such as atypical antipsychotic agents (Examples: clozapine or Clozaril), tranquilizers, epilepsy drugs and anticholinesterases used in treatment of early dementia (Example: donepezil or Aricept).

Reference: Dias BL, Fernandes et al., Sialorrhea in Children with Cerebral Palsy. J Pediatr. 2016

Norderyd J, Graf et al., Sublingual Administration of Atropine Eyedrops in Children with Excessive Drooling. Int. J Paediatr Dent. 2015

A few interesting facts

Did you know the following discoveries were made by accident?

Penicillin: In 1928, after experimenting in the lab, Sir Alexander Fleming, a Scottish researcher, went on a short vacation. Upon returning, Fleming found mold growing on a staphylococcus culture plate and observed the mold had inhibited the organism's growth. Fleming's work was continued by researchers at Oxford University, and by 1942, the first patient was treated with penicillin in the U.S. The timely development of the antibiotic helped reduce the number of deaths and amputations during World War II, but also had a huge impact on 20th century healthcare by saving lives threatened by bacterial endocarditis, meningitis, pneumococcal pneumonia, gonorrhea and syphilis.

Stomach Ulcers: For a long time, people thought stomach ulcers were caused by stress resulting in excess stomach acid. But during the 1980s, two researchers in Australia – gastroenterologist Barry Marshall and his pathologist colleague, Robin Warren – observed that the stomach biopsies of all their ulcer patients contained the organism *Helicobacter pylori*. To prove a hunch that infection was the cause, Marshall drank a pint of H. pylori broth. It induced illness within a week but was completely reversed with antibiotics. The discovery not only changed the way ulcers are treated, it has also meant the eradication of a type of stomach cancer caused by H. pylori. **In 2005, Marshall and Warren were awarded the 2005 Nobel Prize for medicine for their discovery.**

Viagra: Drug molecule sildenafil was originally studied as a possible treatment for angina, and during human trials, male volunteers reported the side effect of sustained erections. The drug was never released for the treatment of angina, and became instead, the first treatment for erectile dysfunction (ED) in 1998.
The most common causes for ED in older men are conditions that block blood flow to the penis, such as atherosclerosis or diabetes.