



PIC QUESTION OF THE WEEK: 05/16/05

Q: What are the usual treatment options for managing sialorrhea?

A: The normal volume of saliva secreted on a daily basis ranges from 1-1.5 L. The largest portion is released from the parotid and submandibular glands. Salivation is mediated by stimulation of muscarinic (M_3) receptors. Excessive drooling or sialorrhea is a frequent complication of neurologic disorders such as cerebral palsy, Parkinson's disease, amyotrophic lateral sclerosis, etc. Up to 40% of patients with cerebral palsy and nearly 70% of those with Parkinson's disease have problems with saliva control. The condition seems more related to poor swallowing mechanisms than to excess salivation. Anticholinergic compounds such as benztropine (Cogentin®), glycopyrrolate (Robinul®), and scopolamine have been the standard of therapy for several years. More recently, periodic injection of botulinum toxin A has proven beneficial. Benztropine was evaluated in a small study involving 27 patients with cerebral palsy. Dosage was titrated from a baseline of 0.5-2 mg (depending on age and weight) daily up to a mean effective dose of 3.8 mg/d. Adverse effects included dry mouth and irritability. Transdermal scopolamine (1.5mg every 72 hours) may be an alternative to oral anticholinergic drugs for the treatment of sialorrhea. In one report, transdermal scopolamine was effective in reducing the frequent sialorrhea associated with clozapine. Central nervous system effects include sedation, confusion, and restlessness. Glycopyrrolate in doses of 0.5 mg once or twice daily (up to a maximum of 8 mg/d in adults) has been effective in reducing drooling. It is considered preferable to other anticholinergic compounds because it does not as readily cross the blood-brain barrier. Regardless, adverse effects are still common and consist of excessive oral dryness, dizziness, urinary retention, dilated pupils, facial flushing, thickened secretions, etc. There are no comparative studies evaluating the various therapies of sialorrhea. Based on an apparent decrease in adverse effects and sufficient evidence of efficacy, glycopyrrolate appears to be the agent of choice for treatment of sialorrhea.

References:

- Tscheng DZ. Sialorrhea-therapeutic drug options. Ann Pharmacother 2002; 36: 1785-90.
- Glycopyrrolate for drooling. Pharmacist's Letter/Prescriber's Letter 2001; 17; 170114.

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