THE USE OF PILOCARPINE IN PALLIATIVE CARE

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Dry mouth is a particularly distressing symptom affecting most patients with cancer. Despite these data this symptom is often neglected, and this area of symptom control has received little attention. It may pose considerable problems, impairing the ability to talk, chew or swallow, reducing the taste sensation, thus exacerbating malnutrition. Dry mouth can be a symptom of a systemic disease, an adverse effect of anticholinergic, antiadrenergic, or cytotoxic drug treatment, or it can be due to radiation therapy of the head and neck region. Opioid use frequently causes the appearance of a dry mouth. Although it is possible to potentially treat the underlying cause, this symptom has never reported to limit the use or the dosage of opioids, thus placing great emphasis on the symptomatic management of dry mouth to enhance patient comfort and maintain quality of life.

Pilocarpine is primarly a muscarinic agonist, increasing the production of saliva from salivary glands. Controlled studies have shown that pilocarpine is an effective treatment for radiation-induced xerostomia.

In a previous observation pilocarpine was used as an adjuvant to morphine therapy, resulting in a better control of opioid-induced adverse effects. In a subsequent study the role of pilocarpine in reducing dry mouth due to opioid treatment for the pain management in advanced cancer patients was assessed using an open label design. Pilocarpine was found to be safe and effective and to have short onset of activity in almost all the patients with opioid-induced dry mouth. A possible placebo effect has to be considered in this kind of open study, but considering the efficacy observed, this appears is unlikely. Whereas dry mouth occurred again in patients who had discontinued pilocarpine, it was reduced by a further treatment with pilocarpine. Pilocarpine was well tolerated and no patient withdrew from the study.

The onset of this substance is very short. Pilocarpine has a rapid effect, the peak plasma concentrations being reached within about 1 hour, and the effect may be prolonged after the drug is discontinued, as a carry-over effect was demonstrated in a cross-over study with saliva substitutes.

As the incidence of adverse effects with pilocarpine is dose-related , patients with drug-induced xerostomia may require smaller doses of pilocarpine, because this group of patients produces more saliva than those with radiation-induced xerostomia. As a consequence the occurrence of severe adverse effects limiting its use, as observed in radiation-induced xerostomia studies, is rare.

. Pilocarpine is not recommended in patients with current or recent histories of cardiovascular disease, unstable hypertension, gastrointestinal ulcers, asthma, acute iritis or narrow-angle glaucoma (15).

Other interesting observations can be drawn from data reported in literature. An improvement in constipation and nausea and vomiting was also reported. This could be done to the gastrointestinal effects of pilocarpine, which increases intestinal secretion and improve activity of the intestinal smooth muscles, commonly reduced by opioids. These data, although relevant, should be confirmed in studies with an appropriate design.