

Treatment of xerostomia in prosthetic patients

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Xerostomia is a clinical condition caused by a decrease in the production of saliva, it may present itself as a local symptom, as part of a systemic disease such as Sjogren's syndrome, diabetics, alcoholism or as side effects of medications or following therapeutic radiation to the head and neck regions. Xerostomia can lead to difficulties in patients receiving prosthetic treatments. The comfort and retention of removable dentures depend largely on the lubricating ability of the saliva and dry mucosa that can compromise the retention of prosthesis. Furthermore, saliva flow facilitates mastication, formation of food bolus and swallowing, and plays an important role in articulation and speech.

Blom et al^[1] demonstrated a significant increase in salivary flow during and after acupuncture treatment in patients with severe xerostomia. In a long-term follow-up of patients treated with acupuncture for xerostomia, Blom and Lundberg^[2] showed that acupuncture could significantly result in improvement in salivary flow rate for up to 6 months. They also showed that additional acupuncture therapy could maintain such improvement in salivary flow rate for up to 3 years. Furthermore, Johnstone et al^[3] demonstrated that acupuncture could provide palliation in patients with pilocarpine-resistant xerostomia following head and neck radiotherapy. Dawidson et al.^[4,5] found the release of several neuropeptides in the saliva of healthy subjects could be increased by acupuncture. The same researchers also demonstrated that the increased release of calcitonin generated peptide (CGRP) could be one of the factors that increase the salivary flow rate in xerostomic patients treated with acupuncture.

With more patients willing to try alternative treatment and with increasing published data available

for clinicians, the ancient Chinese acupuncture has been given a new lease of life with the interpretation of Western science. Not only has it been shown that acupuncture provides more than just placebo effects, but also it has been demonstrated in various controlled trials to have a role in mainstream dentistry, especially in the management of gagging reflex, temporomandibular dysfunction and xerostomia. More standardized clinical trials are needed to demonstrate the effect of acupuncture. Serious adverse effects following acupuncture are rare, however, it is the responsibility of the clinicians wishing to practice acupuncture to have a good understanding of acupuncture philosophy and proper training in the field, and therefore be able to prevent, recognize and manage adverse effects when they occur.

REFERENCES

1. Blom M, Dawidson I, Angmar-Mansson B. The effect of acupuncture on salivary flow rates in patients with xerostomia. *Oral Surg Oral Med Oral Pathol* 1992;73:293-8.
2. Blom M, Lundberg T. Long-term follow-up of patients treated with acupuncture for xerostomia and the influence of additional treatment. *Oral Dis* 2000;6:15-24.
3. Johnstone PA, Peng YP, May BC, et al. Acupuncture for pilocarpine-resistant xerostomia following radiotherapy for head and neck malignancies. *Int J Radiat Oncol Biol Phys* 2001;50:353-7.
4. Dawidson I, Angmar-Mansson B, Blom M, et al. The influence of sensory stimulation (acupuncture) on the release of neuropeptides in the saliva of healthy subjects. *Life Sci* 1998;63:659-74.
5. Dawidson I, Angmar-Mansson B, Blom M, et al. Sensory stimulation (acupuncture) increases the release of vasoactive intestinal polypeptide on the saliva of xerostomia sufferers. *Neuropeptides* 1999;33:244-50.