

Saliva substitutes for the treatment of radiation-induced xerostomia-a review.

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GOAL: The aim of this review is to summarize the in vitro and in vivo evidence on the performance of contemporary saliva substitutes in the treatment of xerostomia and hyposalivation caused by radiation therapy for head and neck malignancies. METHODS: A literature search was conducted during July to September 2008 in PubMed, using the query terms "saliva substitute", "saliva substitute and xerostomia", "artificial saliva", and "artificial saliva and xerostomia"; for clinical studies, only studies in patients suffering from radiation-induced xerostomia have been included in the review. RESULTS AND CONCLUSION: Fifty-two studies met the inclusion criteria and were allotted either to the in vitro topics "viscosity", "lubrication", "wetting properties", "antimicrobial effects", and "enamel and dentin de- and remineralization", or to the in vivo topics "clinical acceptance" or "influence on plaque formation and oral mucosa and microflora". The findings suggest that there are significant differences in the performance of various saliva substitutes concerning the review parameters, yet indicate that further in vitro and in vivo studies on the properties of saliva substitutes are necessary.