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LETTER

Oral Processing, Satiation and Obesity: Overview and Hypotheses: A Short Comment [Letter]

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Dear editor

I read with interest the article by Dr. Arnold Slyper.[1] I would like to suggest adding some brief and useful points to his core conclusion to provide a consolidated overview.

Dr. Arnold Slyper has done a brilliant attempt to overview the obesity form the perspective of current hypotheses on oral processing and satiation. As the author stated, he has focused to present an overview pertaining specifically to the hypotheses pertaining to six areas related to aspects of oral processing.

As the author has pointed out, salivation and lubrication of the food bolus to make it suitable for swallowing, enzymatic activity on the food ingested, sensations within the mouth arising from the food, and finally swallowing of the bolus are amongst the many physiological processes within the mouth which are involved in dealing with food. However, less attention has been paid to the role of salivation in oral processing in that paper.

It is very important to notice that there are also significant inter-individual differences on salivary flow rates (for instance, in patients with diabetic people,[2] schoolchildren,[3] otherwise healthy individuals[4]), as well as age- and sex-related differences in masseter size and its role in oral functions[5] and consequently oral processing of foods.

Salivary response has long been known to mediate olfactory food stimuli as a function of dietary restraint and body weight.[6] Indeed, there is a tight correlation between salivary flow rates and total food/nutrient intake and food preference.[7–9] All these information are important, since both hypo and hypersecretion of saliva is implicated in obesity. These evidences are relevant since salivary flow rates are associated with obesity,[10] metabolic syndrome,[11] noninsulin-dependent diabetes mellitus and obesity-insulin resistance.[12]

Taking into account these neglected associations and differences would undoubtedly help in targeting the best strategy to treat/prevent obesity and/or related disorders in different pathologic conditions (such as Sjogren syndrome, xerostomia, etc.), treatments (xerogenic/xerostomic medicaments, etc.) and settings (long-term radiation/chemotherapy, etc.).

Disclosure

The author reports no conflicts of interest in this communication.

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