

Hyposalivation, xerostomia and oral candidiasis in a group of HIV-infected patients in Thailand

Introduction

It is well established that salivary glands are affected during the course of human immunodeficiency virus (HIV) infection (Fox 1992, Schiodt *et al*, 1992). Complaints of dry mouth or xerostomia have been reported as a common condition among the infected individuals, varying from 7-63% (Silverman *et al*, 1986, Ramirez *et al*, 1990, Laskaris *et al*, 1992, Glick *et al*, 1994, Nittayananta and Chungpanich 1997) due to the differences in study groups and geographic locations. However, subjective complaints of dry mouth do not necessarily imply objectively measurable diminished gland function (Millard and Mason 1993).

Salivary gland hypofunction resulting in decreased saliva flow rates has been observed among HIV-infected individuals compared to HIV free subjects (Mandel *et al*, 1992, Sweet *et al*, 1995). The changes of salivary flow rate may be associated with the progression of HIV disease or the immune status of the patients as it has been shown that AIDS patients had lower secretion rates than asymptomatic HIV persons (sweet *et al*, 1995). Many medications such as antidepressants drugs, antianxiety agents, antihypertensives, diuretics, anticholinergics/antireflux medications, antihistamines and opiates, may also influence the salivary function by inducing reduced saliva output or compositional changes of the saliva (Atkinson *et al*, 1993). However, little is known about the actual prevalence of hyposalivation and xerostomia in consideration with the pharmaceutical consumption among HIV-infected patients.

Oral mucosal lesions frequently occur in HIV-infected persons, often in an early stage of the disease (Silverman *et al*, 1986, Schiodt *et al*, 1987). A variety of oral changes has been associated with salivary gland hypofunction. It has been found that soft-and hard-tissue changes and evidence of mucosal dryness were more prevalent in low-flow rate subjects. These subjects also had higher salivary *Candida* counts (Navazesh *et al*, 1992), which may lead to the presence of oral candidiasis, the most common oral lesion seen in HIV-infected patients. Also it is proposed that defective salivary antifungal activity may contribute to the occurrence of oral candidiasis in patients with AIDS (Pollock *et al*, 1992).

Thus, the purpose of this study was to assess the salivary flow rate and xerostomia in HIV and HIV free subjects with a well-controlled consumption of medications. It also aims to correlate salivary flow rate and the stage of HIV infection, colony forming units of *Candida* and the presence of oral candidiasis.