New Aspects of Oral Viral Diseases

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1 Introduction

The past decade has seen intense and increasing interest in the oral health care consequences of viral infection, particularly the possible relationships between viruses and oral diseases – especially malignant neoplasms, the possible infectivity of saliva and oral secretions and, latterly, the oral consequences of infection with the human immunodeficiency viruses (HIV).

Apart from HIV, most viruses known to cause significant oral disease are DNA viruses, all capable of latency and of being reactivated to cause shedding and disease, not least by loss of immune competence. These infections thus figure large in causing the oral lesions in HIV-infected and other immunocompromised individuals and in being potential sources of infection. Amongst such infective agents, the most important are the herpesviruses and papillomaviruses. These are discussed in this chapter, which is focused on the developing understanding over the decade up to 1995 of the relationship between viruses and oral mucosal lesions (Table 1).

Space here precludes coverage of the more tenuous relations of viruses with oral and salivary gland disease, of salivary carriage of viruses, and of hepatitis, HIV, human T cell leukaemia virus (HTLV)-I, HTLV-II, measles, mumps, rubella and other viruses. Possible virally induced mucosal disorders such as Kawasaki’s disease (mucocutaneous lymph node syndrome) and possible relationships between hepatitis viruses and other oral disease, such as that between hepatitis C and Behçet’s syndrome, hepatitis C and oral cancer, and hepatitis C and lichen planus, are not discussed here; details can be found elsewhere (Scully et al. 1990, 1991; Scully and Bagg 1992; Scully and Samarawickrama 1990, 1992; Scully 1993, 1995; Pedersen et al. 1993; Nagao et al. 1995).

There are at least seven, now possibly eight known herpesviruses (Table 2) and, of these, oral lesions have been firmly attributed to at least five, namely herpes simplex viruses (HSV) types 1 and 2, varicella zoster virus (VZV), Epstein-Barr virus (EBV) and cytomegalovirus (CMV). All can cause a primary infection which is generally subclinical, and all remain latent thereafter and can be reactivated,