PREVALENCE OF VIRUSNEUTRALIZING ANTIBODIES TO SEAL HERPESVIRUS (PHOCID HERPESVIRUS 1) IN DIFFERENT PINNIPED SPECIES

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Recently we described the isolation and partial characterization of a highly pathogenic herpesvirus (SeHV) from the harbor seal (Phoca vitulina), isolated during a disease outbreak in a group of juvenile seals nursed in the seal orphanage in Pieterburen (The Netherlands) and also reported on the screening of antiviral compounds for their capacity to inhibit the cytopathogenicity of SeHV (1,2,3).

In a serological survey conducted among different Pinniped species in Alaska, using a virusneutralization (VN) test, it was shown that VN antibodies (titer ≥5) against this recently discovered virus could be demonstrated in most of the animal species tested. With the exception of the Ribbon seal (Histriophoca fasciata), of which only four samples were tested, anti-SeHV antibodies were found in 21 out of 60 (35%) serum samples from Ringed seals (Pusa hispida), in 4 out of 8 sera (50%) from Spotted seals (Phoca largha), in 2 out of 6 sera (33%) from Bearded seals (Erignathus barbatus), and in 11 out of 23 sera (48%) from Harbor seals (Phoca vitulina). Anti-SeHV antibodies were also found in 66 serum samples from 219 (30%-Valruses (Odobenus rosmarus) and in 3 sera from 12 (75%) Scalions (Eumeropias jubatus)

These data indicte that infections with SeHV or closely related herpesviruses are a common feature in different Pinniped species.

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