

## EDITORIAL

## SINGAPORE EPIDEMIC CONJUNCTIVITIS

Acute haemorrhagic conjunctivitis was first seen in Ghana in June 1969. It quickly spread in Africa including Senegal, Sierra Leone, Nigeria, Ivory Coast, Liberia and Gambia. A similar epidemic conjunctivitis was observed in Indonesia and Singapore in 1970. The epidemic in Singapore was reported by K.H. Lim and M. Yin-Murphy in the S.M.J. in 1970. At that time whilst a virus was implicated, it was not identified. Neither did the features of the conjunctivitis resemble those reported by Singh and Yin Coggrave (1962) and Yin-Coggrave and Loh (1963) during the epidemic kerato-conjunctivitis (E.K.C.) outbreak in Singapore in 1960 and 1962 respectively. These were caused by adeno-viruses.

Subsequently, another epidemic occurred in 1971, between June and December in Singapore. The clinical features resembled the epidemic seen in 1970. Both these epidemics showed similar appearances with great swelling of the lids, mucopurulent discharge, pre-auricular lymphadenopathy and subconjunctival haemorrhages. Corneal involvement was rarely seen and was characterised by fine epithelial infiltrates which rapidly cleared. Resolution occurred quickly in a week or so with little complications. In E.K.C., corneal involvement was more often seen, less transient in character and there were no subconjunctival haemorrhages whilst respiratory and G.I. tract involvement occurred in a fair number of cases. In 1971 epidemic haemorrhagic conjunctivitis exploded in Asia and involved the Indian subcontinent going on to Japan and South Korea. Even in London a small outbreak occurred.

Yin-Murphy isolated the picorna virus responsible for these epidemic attacks in Singapore. The 1971 outbreak was caused by a virus identical or closely related to the acute haemorrhagic conjunctivitis virus isolated in Japan in 1971 and not by the reappearance of the Singapore epidemic conjunctivitis virus of 1970. The Singapore

epidemic conjunctivitis/1970 picorna virus differed antigenically from the Japanese acute haemorrhagic conjunctivitis/1971 picorna virus. Further work by Yin-Murphy suggested that the second outbreak of epidemic conjunctivitis in Singapore was caused by a picorna virus identical to or closely related to the Japanese acute haemorrhagic conjunctivitis/1971 virus, but antigenically different from the Singapore Epidemic Conjunctivitis/1970 virus.

This new picorna virus has the general characteristics of an enterovirus, but unlike the ordinary enteroviruses, it is not found in the intestine but confined to the conjunctiva in the acute stage of the illness. The main source of the eye infection is probably from the eye discharge itself.

The distinctive findings of Yin-Murphy combined with K.H. Lim in demonstrating the new picorna virus responsible for the epidemic outbreak of haemorrhagic conjunctivitis must be accorded its rightful place in the work on viruses done in Singapore. It would appear that the picorna viruses causing the epidemic in various parts of the world are probably different antigenically and in type, but can cause similar outbreaks of epidemic conjunctivitis clinically. It is also more than likely that these epidemic outbreaks will continue to occur in future and clinically, it will be important to recognize them early and to take immediate steps to contain these outbreaks as they incapacitate large sections of the working population, a very undesirable outcome for our republic.

Further work on the isolation and identification of these picorna viruses is important for recently Professor Kono and his co-worker have reported that these viruses have some degree of neuro-virulence in monkeys.

R. C. K. Loh