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SMALLPOX AND MONKEYPOX IN PRIMATES

I. ARITA and D. A. HENDERSON

Smallpox Eradication Unit, World Health Organization, Geneva

Eradication programmes for yellow fever and malaria were initiated in the belief that no animal reservoir for these diseases existed, but in both instances the assumption was later proved to be incorrect. The smallpox eradication programme has been undertaken likewise in the belief that there is no animal reservoir for the disease. However, since the host range of smallpox includes non-human primates, the possibility that these primates might represent an unrecognized natural reservoir for the disease cannot be ignored. A review, therefore, has been undertaken of all available reports since the middle of the last century concerning the occurrence of pox disease in primate populations. The reports are few and with the exception of an outbreak amongst orang-utans in the Djakarta Zoo in 1946, the diagnosis of smallpox has been based solely on clinical observations of sick monkeys. The recent recognition of monkeypox as an entity suggests that most, if not all, of these reports represent descriptions of that disease. The fact that smallpox has been eradicated from large areas with substantial monkey populations lends further support to the belief that these reported illnesses represent monkeypox rather than smallpox.

With regard to monkeypox, questionnaires were distributed by WHO to 26 major biological laboratories to ascertain their experiences with pox diseases in primates. Including the four episodes which had previously been published, a total of nine outbreaks of pox disease in monkeys were notified; three in Europe and six in North America. No human infection amongst the persons who had close contact with such infected monkey colonies was reported.

Whilst continuing appraisal is required, it would appear that non-human primates do not provide a natural smallpox reservoir and that monkeypox does not pose a serious threat to man.

A paper setting out the full details of this enquiry is being published elsewhere.

DISCUSSION

Dr. RUCH: What precautions does Dr. ARITA recommend to protect personnel?

Dr. ARITA: Smallpox in monkeys is very rare and there is no record of monkey-pox affecting man, but it might be a wise precaution to vaccinate personnel and monkeys.

Dr. SCHMIDT: The last pox infection in monkeys which Dr. ARITA referred to occurred in my laboratory. Over the Christmas and New York holidays 18 monkeys became affected. We were uncertain what we should do but decided to vaccinate all the personnel and all the monkeys. There were no untoward reactions except in some young monkeys which developed numerous vesicles. There were some febrile reactions and we lost some young monkeys. Since then, there have been no more cases of pox in our monkeys.

Dr. UDALL: Is there any information about the use of Marboran (Methiazon) in monkeypox or in Yaba disease?

Dr. ARITA: I know of no reports on the use of Marboran in these conditions.

Mr. FIENNES: The monkey pox reported by PETERS in the Netherlands appeared to be transmitted to the monkeys from giant anteaters.

Authors' address: Dr. I. ARITA and Dr. D. A. HENDERSON, Smallpox Eradication Unit, World Health Organization, 1211 Geneva (Switzerland).