

A PRELIMINARY REPORT ON THE ISOLATION OF BOVINE MALIGNANT CATARRHAL FEVER VIRUS IN IRAN (*)

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An outbreak of malignant catarrhal fever occurred among dairy cattle and calves of varying ages on a farm near Teheran in January 1970. Sixty per cent of the animals were seriously affected and nine per cent died. Blindness, purulent nasal discharge and lacrimation were the most common symptoms. Some pregnant cows aborted. Laboratory tests proved that neither brucellosis nor vibriosis was the cause of abortion.

An acutely ill cow slaughtered, and mesenteric lymph nodes and part of the spleen removed under aseptic conditions, and ground in a sterile mortar. A 10 per cent suspension was prepared with VM3(Schwöbel & Siedentopf, 1961) containing 100 I. U. of penicillin and 100 mg. streptomycin per ml. The suspension was then centrifuged at 2500 r.p.m. for 10 min. Supernatant fluid was diluted 1/5 and 1/10 and each dilution inoculated in 1 ml. amounts into five tubes of primary calf kidney cells. After an adsorption period of four hours, the inoculum was discarded and replaced by 2 ml. of fresh VM3. The infected cultures together with five non-inoculated control tubes were kept at 37°C. and checked daily for appearance of cytopathic effect (CPE) up to 10 days. During this period the cells did not show any CPE. They were then frozen at -20°C., thawed the following day and inoculated into ten new calf kidney monolayers. Slight CPE was observed in infected cultures on the eighth day. The isolate was passed three more times in calf kidney and once in calf thyroid cells.

Virus neutralisation tests were conducted, using the fifth tissue culture passages of the isolate, with specific bovine malignant catarrhal fever immune serum having a log₁₀ SN₅₀ titre of >10^{2.0}, which was generously supplied by Professor W. Plowright, East African Research Institute, Muguga, Kenya.

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The virus was neutralised in the presence of BMCF serum, while control cultures with normal cattle sera showed distinctive CPE.

Reference

Schwöbel, W., & Siedentopf, V. (1961), *Zentbl. Bakt.* 1 Orig. 181. 3.