Case report

VESICOPUSTULAR FACIAL INFECTION RELATED TO POXVIRUS

Lerer C\(^1\), Pereira MR\(^1\), Ormiga P\(^1\), Palma F\(^1\), Silva GF\(^1\), Rito C\(^1\), Flores V\(^1\), Schatzmayr HG\(^2\)

\(^1\) Dermatology Unit, Marcilio Dias Navy Hospital, Rio de Janeiro

\(^2\) Hantavirus Laboratory, Group for Poxvirus Studies, Instituto Oswaldo Cruz, Rio de Janeiro, Brazil.

Corresponding author:

Patricia Ormiga, MD

Dermatology Unit, Marcilio Dias Navy Hospital, Rio de Janeiro

E-mail: paormiga@gmail.com

Key words: poxvirus, vaccinia-like virus, poxvirus in Brazil, human infections
Our report describes a vesicopustular infection related to poxvirus: HJM, male, white, 26, single, Navy Officer, from Espírito Santo state at Southeast Region of Brazil, living in the rural area, has been hospitalized due to a facial cellulitis condition and the presence of nodular and ulcerous lesion in the frontal region. The dermatological examination showed the presence of papules, pustules, asymptomatic erythematous nodules and ulcerations, grouped in the frontal region, together with crusted erythematous in the left nasolabial region (Fig. 1). There was also intense edema in the left hemiface and ipsilateral preauricular lymphadenomegaly. The patient reported frequent contact with cattle and the presence of similar lesions in his family members and other inhabitants of his town.

A biopsy of the ulcerous lesion of the front region was made. The histopathological examine showed epidermis with acanthosis and occasional apoptosis of the keratinocytes, plus edema of the papillary dermis and the presence of nodular lymphoid hyperplasia. Antibody testing by a plaque reduction method showed neutralizing antibodies for vaccinia virus in the serum of the patient at 1:640 dilution, confirming recent poxvirus infection, taking into account that the patient had not been vaccinated for the poxvirus group. The conduct was expectant, with spontaneous resolution of the lesions in four weeks (Fig. 2).

DISCUSSION

A home by home vaccination campaign against smallpox, using vaccinia virus has been carried out in Brazil in the 60’s and 70’s last century, reaching around 70 Mi people. Starting by 1999 cases of vesicopustular disease, clinically resembling poxvirus infections in humans and cattle have been observed in the southeast part of the country
(Schatzmayr et al. 2000). Virus isolations in tissue culture, molecular test-PCR, virus sequencing, serology studies and electron microscopy observations, confirm the circulation of vaccinia-like virus strains, very close to the strain used for vaccine preparation (Damaso et al. 2000, Schatzmayr et al. 2006). Clinically the human cases presented the classical evolution of vesicles to pustules and crusts in arm, hand and occasionally in the face along about three weeks, besides fever, asthenia and local ganglion response. Some cases have been hospitalized for a few days. Our case presented signs and symptoms compatible with the vaccinia cases as described above, and the patient has confirmed contact with infected cattle days before the start of the symptoms.

This report confirm that vaccinia virus is circulating in extensive areas in Brazil and became a novel dermatological condition in the country, similarly to cow-pox infections in Europe and parts of Middle-East. However cow-pox virus has never been described in the Americas.

REFERENCES


Figure 1. Lesion on the stage of ulceration.

Figure 2. Lesion on the healing stage about eight weeks after onset of symptoms