IDCases 5 (2016) 32–33

Contents lists available at ScienceDirect

IDCases

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Case study

Atypical rashes in adult human Parvovirus B19 infection; atypical is typical

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ARTICLE INFO

Article history:
Received 30 March 2016
Received in revised form 27 May 2016
Accepted 31 May 2016

Keywords:
Erythema infectiosum
Parvovirus B19
Rash
Adult

The childhood illness erythema infectiosum (EI) is caused by Parvovirus (PV) B19 with a slapped cheek-like rash and sometimes a lace-like rash on the extremities but cutaneous manifestions in infection in the adult can be atypical. A healthy 38-year-old male office worker and a 32-year-old non-pregnant female kindergarten teacher presented with fever (former; 37.2 °C for 3 days, latter 38.1 °C for 4 days) following a skin rash persisting several days at different times. Both had a non-pruritic rash (Figs. 1 and 2) on the extremities and a painful postauricular lymphadenopathy. PV B19 infection was confirmed in both by a positive enzyme-linked immunosorbent assay (ELISA) result for serum PV B19-specific IgM. Neither had a typical facial rash nor painful joints. Although the man had no history of exposure to PV B19 infection, the woman was exposed to kindergarteners who with PV B19 infection.

In Tokyo, in 2000, 1482 cases overall and 34 individuals aged >15 were reported for PV B19 infection. In 2015, 9076 cases were reported during the first 42 weeks; 174 (1.9%) of these were aged >15. A recent study in Japan showed a seropositive rate of 54.3% among blood donors, and 54 out of 2374 pregnant women developed PV B19 infection [1]. Among sixty-nine pregnant woman who were infected with PV B19 infection, 35 (50.7%) were elected to terminate the pregnancy, 14 were stillborn and 3 had spontaneous abortions. Only 17 out of 69 pregnant woman

Fig. 1. Palpable rash of extremities in a 38-year-old male office worker.

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http://dx.doi.org/10.1016/j.idcr.2016.05.005

Fig. 2. Rash of extremities in a 32-year-old non-pregnant female kindergarten teacher.

delivered a healthy baby [2]. Recent study suggests that 72% of pre-pregnant woman are ignored PV B19 infection [3]. Generally, 20% of infected individuals remain asymptomatic and skin manifestations associated with adult PV B19 infection can be non-typical (i.e. erythematous, purpuric) [4]. Adult PV B19 infection is still a major concern for pregnant women in Japan.

Conflict of interest

None.

Funding

None.

Consent

Written informed consent was obtained from the patient for publication of this case report and accompanying images. A copy of the written consent is available for review by the Editor-in-Chief of this journal on request.

Author contribution

Writing: Yuji Hirai.
Data collection and analysis: Yuji Hirai.
Supervision: Yoshihiko Takeda.

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