INDIAN J DERMATOL VENEREOL LEPROL 1989; 55 : 320-321

GENERALIZED VARICELLA IN AN IMMUNOCOMPROMISED PATIENT

N G Patwardhan, Mohan B Gharpuray and Anil H Patki

A 16-year-old boy with Hodgkin's disease on MOPP regimen developed generalized varicella. He was treated with oral acyclovir with good results.

Key words : Varicella, Hodgkin's disease.

The varicella-zoster virus is responsible for causing chicken pox and herpes zoster in human beings. Both these conditions are usually benign and self-limiting in patients with an otherwise normal immunological status. However, the mortality and morbidity due to these conditions is markedly increased in patients who are immunocompromised due to various reasons. These conditions include patients with lymphomas, leukemias, and those receiving cytotoxic drugs, corticosteroids and radiotherapy.[1] It is more severe in renal transplant patients receiving cyclosporin.[2] The eruption of varicella in immunocompromised patients is extensive with a longer period of evolution. Dissemination to lungs, liver, brain and other viscera may occur. The eruption may be purpuric. Intravascular coagulation may occur.[1] We are reporting a case of generalized varicella with haemorrhagic lesions in a 16-year-old boy with Hodgkin's disease on chemotherapy.

Case Report

A 16-year-old boy was diagnosed two years ago as a case of Hodgkin's disease with mixed cellularity and stage II A. He was put on COPP regimen with the following dosage schedule : Cytoxan 600 mg/m^2 intravenously on days 1 and 8, vincristine 1.4 mg/m^2 intravenously on days 1 and 8, prednisolone 40 mg/m^2 orally from day 1 to 14, and procarbazine 100 mg/m^2 orally from day 1 to 14. A 14-day cycle was separated by a rest period of 14 days. He went into remission after 6 cycles. However, after 2 years, he relapsed with enlarged cervical lymph nodes. He was put on MOPP regimen with mustine hydrochloride 6 mg/m^2 replacing cytoxan in the prior regimen. After the second cycle, he developed fever, malaise and bodyache for 3 days following which he developed vesicular lesions on the chest. These were superficial and situated on an erythematous base. Within a day, the eruption rapidly spread to involve the face, back and extremities to become generalized. Some of the lesions were haemorrhagic (Figs. 1 and 2). There was no history of herpes infection or contact with a case of varicella or herpes zoster.

There was no other systemic abnormality. The Tzanck smear of the vesicle fluid stained

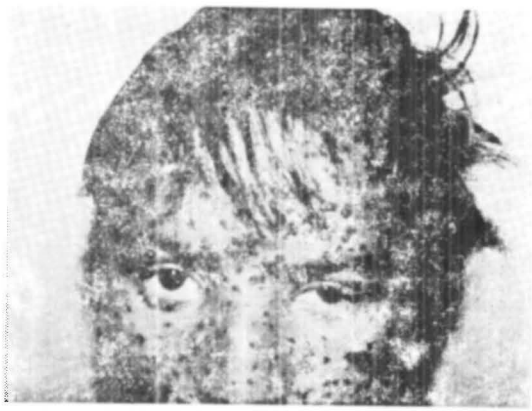

Fig. 1. Haemorrhagic lesions on the face.

From the Department of Dermatology, Sassoon General Hospital and BJ Medical College, Pune-411 001, India.

Address correspondence to : Dr M B Gharpuray, Dermatology Clinic, Continental Chambers, Karve Road, Pune-411 004, India.

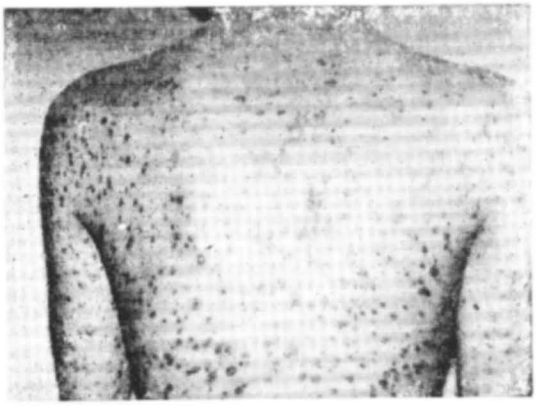

Fig. 2. Lesions on the back, some of which are haemorrhagic.

with Giemsa stain revealed multinucleated giant cells with intranuclear inclusions. He was diagnosed as a case of generalised varicella. He was put on oral acyclovir 200 mg five times a day for 5 days. The eruption started crusting 2-3 days after the course of acyclovir was over. The crusts fell off at the end of 2 weeks. The chemotherapy for Hodgkin's disease was resumed 1 week after complete disappearance of the eruption and the patient was progressing well when seen last.

Comments

Varicella attacks in immunocompromised children are usually severe and may be fatal.[3] The rash continued to appear for as long as 17 days in a case reported by Cheatham et al[3] and viremia was so prolonged that the virus could be isolated from the blood at the time of death. The complement fixing antibodies usually appear on the 5th day of illness but were absent in the above mentioned case. The other case reported by the same authors died due to severe vascular damage and haemorrhages. The incidence of herpes zoster is also increased in patients with depressed cell mediated immunity than in controls.[4] In a large series of 600 patients of Hodgkin's disease,[5] 8% patients had one or more episodes of varicella-zoster disease. These episodes were of three types : localized herpes zoster, herpes zoster with dissemination and generalised varicelliform eruption without zoster. Our case fits in the third type.

The risk of varicella in patients with leukemias and lymphomas is increasing due to more aggressive chemotherapy and increasing survival time.[6] Hattori et al[6] have recommended the use of a live varicella vaccine (Oka strain) in patients with leukemia and other malignancies during remission.

The treatment for varicella in an immunocompromised host includes the use of acyclovir and vidarabine.[1,7] We used oral acyclovir due to non-availability of parenteral preparation.

References

1. Oxman MN : Varicella and herpes zoster, in : Dermatology in General Medicine, Third ed, Editors, Fitzpatrick TB, Eisen AZ, Wolff K et al : McGraw Hill Book Company. New York, 1987; p 2314-2340.
2. Feldhoff CM, Balfour HH, Simmons RL et al : Varicella in children with renal transplant, J Paediat, 1981; 98 : 25-31.
3. Cheatham WJ, Weller TH, Dolan TF et al : Varicella : report of two fatal cases with necropsy, virus isolation and serologic studies, Amer J Pathol, 1956; 32 : 1015-1036.
4. Morison WL : Viral warts, herpes simplex and herpes zoster in patients with secondary immune deficiencies and neoplasms, Brit J Dermatol, 1975; 92 : 625-630.
5. Sokal JE and Firat D : Varicella-zoster infection in Hodgkin's disease, Amer J Med, 1965; 39 : 452-463.
6. Hattori A, Ihara T, Isawa T et al : Use of live varicella vaccine in children with acute leukaemia or other malignancies, Lancet, 1976; 2 : 210.
7. Whitley R, Hilty M, Haynes R et al : Vidarabine therapy of varicella in immunosuppressed patients, J Paediat, 1982; 101 : 125-131.