

BRIEF COMMUNICATION

Herpes zoster in children with cancer

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Abstract

The aim of this study was to determine the incidence and outcome of herpes zoster hospitalised children with cancer in Kota Baru. It was a retrospective review from January 1994 to December 1998. The diagnosis of herpes zoster was a clinical one. Herpes zoster was diagnosed in 10 of 188 (5%) children with malignancy. The most common malignancy was leukaemia. Nine children were treated with acyclovir. No child developed visceral dissemination and there were no deaths.

Key words: zoster, children, cancer

INTRODUCTION

Herpes zoster is uncommon in childhood. Immunocompromised children however are a high-risk group who are more likely to have severe or atypical disease. The aim of this study was to determine the incidence and outcome of herpes zoster in hospitalised children with cancer in Kota Baru, Kelantan,

SUBJECTS AND METHODS

This was a retrospective review from January 1994 to December 1998. The records of children with a diagnosis of malignancy admitted to the paediatric wards of Hospital Universiti Sains Malaysia were examined. Herpes zoster was diagnosed on the basis of a typical distribution of vesicular lesions clustered unilaterally in a sensory dermatome.

RESULTS

Over the study period of 5 years, a total of 188 children were admitted with a diagnosis of malignancy. Ninety-seven had leukaemia and 91 had solid tumours. Herpes zoster was diagnosed in 10 (5%) children. Their clinical characteristics are shown in Table 1. All affected children were on chemotherapy at the time of illness. None were bone marrow transplant recipients. No child developed visceral dissemination.

Nine children were treated with acyclovir for 10 days, with a minimum duration of intravenous acyclovir of 5 days. One child (case 8), on maintenance chemotherapy, presented to the

hospital on day 10 of illness when the rash had healed. This child did not receive acyclovir. Five children were neutropenic at the time of illness and 8 received antibiotics in addition to acyclovir. There were no deaths.

DISCUSSION

In this study, the majority of children with zoster had acute leukaemia. The only solid tumour was Non-Hodgkin's lymphoma. A study in the United States found that the incidence of herpes zoster was highest in children with Hodgkin's disease (22-38%), followed by acute leukaemia (10%) and other solid tumours (5%).¹ Hodgkin's disease is relatively uncommon in Malaysia and there was only 1 case in our series.

It is reported that 25% of children with acute leukaemia and a positive history of varicella developed zoster as compared to 3% in those with no/unknown history.² In this review however, the majority of cases did not have a history of previous varicella. Of the 3 cases who did, none occurred in infancy. Chickenpox in infancy is a known risk factor for childhood zoster.³

The diagnosis of zoster was a clinical one as we lacked facilities for viral culture. Culture is necessary for a definitive diagnosis as a zosteriform rash may be caused by herpes simplex virus. A study in adults with a clinical diagnosis of zoster found that herpes simplex virus was isolated in 13% of cases.⁴

Only one child received 10 days of intravenous acyclovir. The others were successfully

TABLE 1: Characteristics of children with herpes zoster

Case No.	Age	Sex	Malignancy	History of chickenpox (age)	Dermatome
1.	2y 4mo	f	ALL	no	L3
2.	4y 8mo	f	ALL	yes (4y)	T5
3.	4y 6mo	m	ALL	no	T4
4.	3y 8mo	m	ALL	no	T1
5.	4y 9mo	m	ALL	no	C7
6.	5y 8mo	m	ALL	no	L3
7.	5y 9mo	m	ALL	no	C3
8.	9y 6mo	m	AML	yes (4y)	T10
9.	10y 11mo	m	BL	not known	T12
10.	12y 5mo	m	BL	yes (6y)	T5

KEY: y = years; mo = months; m = male; f = female; ALL= acute lymphoblastic leukemia; AML- acute myeloid leukaemia; BL-Burkitt's lymphoma; C = cervical; T = thoracic; L = lumbar.

converted to the oral form. The sequential use of intravenous followed by oral acyclovir has not been shown to be deleterious in immunocompromised children with varicella.⁵

In conclusion, herpes zoster occurred in 5% of hospitalised children with cancer, all of whom had a good clinical outcome

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