Case Study

VARICELLA DURING PREGNANCY: A CASE REPORT

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ABSTRACT

Chickenpox (or primary VZV infection) is a common childhood disease that usually causes a mild infection. Women who develop chickenpox in pregnancy should be referred to a fetal medicine specialist. The author will describe a case of a pregnant woman who develop a severe infection of varicella at 38 weeks of gestation and the risk of maternal varicella infection to the fetus or baby.

KEY WORDS

Varicella, pregnancy, aciclovir, varicella-zoster virus.

INTRODUCTION

Varicella, the primary infection with varicella-zoster virus (VZV; human herpesvirus), in pregnancy may cause maternal mortality or serious morbidity. It may also cause fetal varicella syndrome (FVS) and varicella infection of the newborn, which includes congenital varicella syndrome (CVS) and neonatal varicella. The author will describe a case of a pregnant woman who develop a severe infection of varicella at 38 weeks of gestation with review of the literature.

CASE REPORT

It is a 27-year-old patient, having a bi-cicatricial uterus admitted to 38 weeks of amenorrhea for the management of her pregnancy. The patient presented 4 days before her consultation a pruriginous rash occupying the neck, the trunk extending to the limbs and face sparing the palmar-plantar region (Figure 1). The patient was in direct contact with her daughter who caught chickenpox 3 weeks ago. The patient benefited from a caesarean section allowing the extraction of a newborn without apparent injury. The mother was transferred to a virology department and was put on aciclovir under the dose of 10 mg per kilo, 3 times a day during 10 days and the baby was transferred to pediatric ward with isolation and was put on aciclovir under the dose of 20 mg per kilo 3 times a day during 10 days. Breastfeeding will be started on day 10 of the postpartum.

DISCUSSION

Chickenpox (or primary VZV infection) is a common childhood disease that usually causes a mild infection. Over 90% of individuals over 15 years of age in England and Wales are seropositive for VZV immunoglobulin G (IgG) antibody. Primary VZV infection in pregnancy is uncommon; it is estimated to complicate 3 in every 1000 pregnancies (1).

The incubation period is between 1 and 3 weeks and the disease is infectious 48 hours before the rash appears and continues to be infectious until the vesicles crust over. The vesicles usually crust over within 5 days.

Although varicella infection is much less common in adults than in children, it is associated with a greater morbidity, namely pneumonia, hepatitis and encephalitis. (2)
The incidence of pneumonia complicating varicella in pregnancy has been quoted at 10–14%,28 but these rates are based on small case series.(3)

women should be advised that the risk of spontaneous miscarriage does not appear to be increased if chickenpox occurs in the 1st trimester.

If the pregnant woman develops varicella or shows serological conversion in the 1st 28 weeks of pregnancy, she has a small risk of FVS and she should be informed of the implications. Spontaneous miscarriage does not appear to be increased if chickenpox occurs in the 1st trimester.(4-5)

FVS is characterised by one or more of the following: skin scarring in a dermatomal distribution; eye defects (microphthalmia, chorioretinitis or cataracts); hypoplasia of the limbs; and neurological abnormalities (microcephaly, cortical atrophy, mental retardation or dysfunction of bowel and bladder sphincters).

It does not occur at the time of initial fetal infection but results from a subsequent herpes zoster reactivation in utero and only occurs in a minority of infected fetuses.(6)

When maternal infection occurs in the last 4 weeks of a woman’s pregnancy, there is a significant risk of varicella infection of the newborn. A planned delivery should normally be avoided for at least 7 days after the onset of the maternal rash to allow for the passive transfer of antibodies from mother to child, provided that continuing the pregnancy does not pose any additional risks to the mother or baby. (7)

A neonatologist should be informed of the birth of all babies born to women who have developed chickenpox at any gestation during pregnancy.

Women should avoid contact with potentially susceptible individuals. other pregnant women and neonates, until the lesions have crusted over. This is usually about 5 days after the onset of the rash.

Symptomatic treatment and hygiene is advised to prevent secondary bacterial infection of the lesions.(8)

Oral aciclovir should be prescribed for pregnant women with chickenpox if they present within 24 hours of the onset of the rash and if they are 20 weeks of gestation or beyond. Use of aciclovir before 20 weeks should also be considered.

Aciclovir is not licensed for use in pregnancy and the risks and benefits of its use should be discussed with the woman.(9)

Intravenous aciclovir should be given to all pregnant women with severe chickenpox.(10)

For babies born to mothers who have had chickenpox within the period 7 days before to 7 days after delivery, it is therefore vital that the neonate receives prophylaxis as soon as possible with VZIG with or without aciclovir; there is no need to test in these circumstances.(1,2)

Women with chickenpox should breastfeed if they wish to and are well enough to do so. If there are active chickenpox lesions close to the nipple, they should express breast milk from the affected breast until the lesions have crusted over. The expressed breast milk may be fed to the baby who is receiving treatment with VZIG and/or aciclovir.

**Figure 1:** pruriginous rash occupying, the trunk.

**CONCLUSION**

varicella vaccination prepregnancy or postpartum is an option that should be considered for women who are found to be seronegative for varicella-zoster virus immunoglobulin G (VZV IgG).

While universal serological antenatal testing is not recommended seronegative women identified in pregnancy could be offered postpartum immunisation.

Women who are vaccinated postpartum can be reassured that it is safe to breastfeed

**REFERENCES**


