Management of Varicella Infection (Chickenpox) in Pregnancy

This Clinical Practice Guideline has been prepared by the Maternal Fetal Medicine Committee, reviewed by the Infectious Diseases Committee and the Family Physician Advisory Committee, and approved by the Executive and Council of the Society of Obstetricians and Gynaecologists of Canada.

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Disclosure statements have been received from all members of the committee

J Obstet Gynaecol Can 2012;34(3):287–292

Key Words: Chickenpox, varicella, diagnosis, pregnancy

Abstract

Objective: To review the existing data regarding varicella zoster virus infection (chickenpox) in pregnancy, interventions to reduce maternal complications and fetal infection, and antepartum and peripartum management

Methods: The maternal and fetal outcomes in varicella zoster infection were reviewed, as well as the benefit of the different treatment modalities in altering maternal and fetal sequelae

Evidence: Medline was searched for articles and clinical guidelines published in English between January 1970 and November 2010

Values: The quality of evidence was rated using the criteria described in the Report of the Canadian Task Force on Preventive Health Care Recommendations for practice were ranked according to the method described in that report (Table)

Recommendations

1 Varicella immunization is recommended for all non-immune women as part of pre-pregnancy and postpartum care (II-3B)

2 Varicella vaccination should not be administered in pregnancy However, termination of pregnancy should not be advised because of inadvertent vaccination during pregnancy (II-3D)

3 The antenatal varicella immunity status of all pregnant women should be documented by history of previous infection, varicella vaccination, or varicella zoster immunoglobulin G serology (III-C)

4 All non-immune pregnant women should be informed of the risk of varicella infection to themselves and their fetuses They should be instructed to seek medical help following any contact with a person who may have been contagious (II-3B)

5 In the case of a possible exposure to varicella in a pregnant woman with unknown immune status, serum testing should be performed If the serum results are negative or unavailable within 96 hours from exposure, varicella zoster immunoglobulin should be administered (III-C)

6 Women who develop varicella infection in pregnancy need to be made aware of the potential adverse maternal and fetal sequelae, the risk of transmission to the fetus, and the options available for prenatal diagnosis (II-3C)

7 Detailed ultrasound and appropriate follow-up is recommended for all women who develop varicella in pregnancy to screen for fetal consequences of infection (III-B)

8 Women with significant (e g , pneumonitis) varicella infection in pregnancy should be treated with oral antiviral agents (e g , acyclovir 800 mg 5 times daily) In cases of progression to varicella pneumonitis, maternal admission to hospital should be seriously considered Intravenous acyclovir can be considered for severe complications in pregnancy (oral forms have poor bioavailability) The dose is usually 10 to 15 mg/kg of BW or 500 mg/m^2 IV every 8 h for 5 to 10 days for varicella pneumonitis, and it should be started within 24 to 72 h of the onset of rash (III-C)

9 Neonatal health care providers should be informed of peripartum varicella exposure in order to optimize early neonatal care with varicella zoster immunoglobulin and immunization (III-C) Varicella zoster immunoglobulin should be administered to neonates whenever the onset of maternal disease is between 5 days before and 2 days after delivery (III-C)

INTRODUCTION

Key to evidence statements and grading of recommendations, using the ranking of the Canadian Task Force on Preventive Health Care

Quality of evidence assessment*	Classification of recommendations†
I: Evidence obtained from at least one properly-designed randomized controlled trial	
II-1: Evidence obtained from well-designed controlled trials without randomization	
II-2: Evidence obtained from well-designed cohort or case-control analytic studies, preferably from more than one centre or research group	
II-3: Evidence obtained from comparisons between times or places with or without the intervention. Dramatic results in uncontrolled experiments (such as the results of treatment with penicillin in the 1940s) could also be included in this category	
III: Opinions of respected authorities, based on clinical experience, descriptive studies or reports of expert committees	

PREVENTION OF MATERNAL COMPLICATIONS

PERIPARTUM EXPOSURE

PREVENTION OF INTRAUTERINE INFECTION

Definition of Significant Exposure