

A Review of Chicken Pox (Varicella) in Pregnant Women and Perinatal Outcome

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Introduction

Chicken pox or Varicella is a viral infection acute in onset and it is highly infectious. It is caused by a virus called Varicella Zoster. It is featured by vesicular rash associated with fever and malaise. It is global in distribution. The present study includes the outcome of pregnancy affected by chickenpox and review of literature.

The aim of the study was to evaluate the effects of pregnancy with chicken pox on the neonates.

Material and Methods :

Over fifty two cases of chicken pox attended the Gynaec. Dept. of Medical College Hospital, Calcutta over a span of four years (March 1992 to March 1996).

Their detailed history of onset of fever, rash and its site of appearance was asked. After delivery the neonates were examined for any rash and their well being noted. Their Apgar scores were noted.

Results :

Out of the fifty two cases of pregnancy with chicken pox 10 cases were primiparae and 42 cases were multiparae.

Age Group Distribution :

Forty one cases belonged to the age group range 20-40 yrs. and 11 patients were above 40 yrs. Of the total cases trimester wise distribution stands as follows :-

Two cases of chicken pox were detected in the 1st

trimester, 18 cases were detected in the second trimester, and 30 cases were detected in 3rd trimester.

Appearance of Chicken Pox Rashes

Duration of Pregnancy	No. of Cases
1st Trimester	2
2nd Trimester	18
3rd Trimester	30
2nd day of Puerperium	2

of two 1st Trimester cases one patient aborted on the 5th day of the appearance of the rash and the second case was treated in the isolation ward of the hospital and discharged after the falling of the scabs. Before delivery she got admitted and delivered a full term baby who showed no congenital malformations.

Outcome of pregnancy is expressed in Table - 1

	Abortion	Still born	Normal delivery	Premature delivery	I.U.G.R.	Skin rash in Neonates
1st trimester	1	x	1	nil	nil	nil
2nd trimester	3	1	3	11	1	O
3rd trimester	nil	nil	1	29	nil	6
Puerperium	nil	nil	2	nil	nil	nil

Out of the eighteen cases in the second trimester of pregnancy, all cases got admitted in the isolation ward. Three (3) of them had abortions while being treated. Six (6) cases had premature deliveries. One (1) delivered a still born baby. Eight (8) patients went home after being treated. Two patients had full term normal babies whose birth weights were normal. One patient delivered a

L.U.G.R. baby and five babies were prematures. Of the 3rd trimester cases, 29 cases delivered prematurely. One had full term baby of average birth weight.

The patient who had developed chicken pox in the 2nd puerperal day had normal baby of average weight. Out of the 30 third trimester babies, six babies developed skin lesions suggestive of typical chicken pox and one had proved viral conjunctivitis. The baby who developed congenital lesions was born within the infectivity period of the chicken pox i.e. within one to two days before the onset of skin rashes and within five days after the appearance of the rash.

Discussion :

Chicken pox tends to be much severe in pregnancy. It can occur in any trimester and also in the puerperium. Out break of chicken pox during first trimester has been incriminated for congenital malformations due to vertical transmission and coincidental foetoembryonal infection. In our study we had encountered only two cases of 1st trimester pregnancy with chicken pox. One case ended in abortion and one a term delivery. But the baby showed no signs of congenital defect. The clinical course of

chicken pox in pregnancy is mainly dependent on the timing of maternal cutaneous rash in relation to the time of delivery during the infectious period, it endangers the fetus and the new born to a great extent. Paryani et al (1986) reported that 10% of maternal infections resulted in clinical evidence of fetal infections. In our study out of 52 cases 6 (six) about 12% had clinical evidence of fetal infection. Infection in late pregnancy may result in premature labour. In our present study, a total forty cases had premature labour.

Conclusion :

Chicken pox is highly contagious. Infection in the pregnant mother is low. Our study really lacked in adequate number of cases to show all the copy book picture and florid manifestation of chicken pox i.e. varicella pneumonia in chicken pox. Due to the non-availability of vaccine i.e. varicella zoster immunoglobulin, we could not administer it either to the mother or to the neonates. Also we could not diagnose seropositivity.

References :

Paryani SG, Arvin AM : N Engl. J. Med. 314 : 1542:1986