

## Respiratory Viruses in Acute Bronchiolitis in Delhi

We studied the etiology of bronchiolitis in Delhi. Respiratory syncytial virus (RSV) was the most commonly isolated virus in 72/245 infants (30%). RSV positive cases did not have more severe disease; this argues against routine use of ribavirin.

**Key words:** *Bronchiolitis, Delhi, Respiratory syncytial virus.*

**T**here are numerous studies looking at the etiology of bronchiolitis in the West but few from the tropics(1-4), with only one study from India(5).

We conducted this trial in a Delhi hospital between January 1 and December 31, 2007 and enrolled 245 infants (1 month to 1 year) with evidence of bronchiolitis (characterized by tachypnea; respiratory rate more than 60 per minute between 1-2 months of age and more than 50 per minute beyond 2 months age; with wheezing or fine crackles) following a written informed consent from parents. Nasopharyngeal aspirates, nasopharyngeal swabs and throat swabs were obtained from them and evaluated at the National Institute of Communicable Diseases (NICD), Delhi. Specimens were processed for viral culture, ELISA and PCR. The study was approved by the hospital research committee.

Viral identification rate was 46.12%. Respiratory syncytial virus (RSV) was isolated in 72 (29.38%) cases, adenovirus in 19 (7.75%), influenza virus in 3 (1.22%) (Type A: 1 and Type B: 2), parainfluenza virus in 9 (3.67 %) (type 1: 7 cases and type 3 : 2 cases), rhinovirus in 6 (5.31%) and metapneumo-virus in 1 (0.88%). Mixed infections were documented in 6.6% of cases.

RSV was most commonly isolated in November. The incidence peaked in the early part of winter, similar to the pattern seen in the West.

We tried to correlate the clinical profile of cases with the virus isolated. We found fever, fever with crepitation, and fever with crepitation and rhonchi, significantly more associated with RSV compared to infants without RSV (*P* value 0.015, 0.024 and 0.016, respectively). Unlike(6), El Radhi, *et al.* we did not find an association of fever with more severe illness.

Although a higher severity of illness and fatality rates in bronchiolitis with adenovirus(7) and rhinovirus(8) have been reported previously, we found no statistical association between the virus identified and severity of illness (defined as a Downe's respiratory distress score of 4 or more, for purposes of this study).

Antiviral treatment with ribavirin is not prescribed in the West, except in the most serious cases. In the present study, RSV was not isolated in 70% cases and its isolation was not associated with more severe disease. This argues against routine use of ribavirin in bronchiolitis. More studies need to be done from other parts of the country to look for regional differences in incidence and etiology.

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## Congenital Malformations in Twins: Effect of Chorionicity and Zygosity

Twins suffer a high risk of congenital malformations but the data from our region is scanty. In this study, 133 twin pairs (266 twin babies) were studied and a 3.4% incidence of malformations was seen without gender preference. There was no association of chorionicity and zygosity with the risk for having congenital malformations.

**Keywords:** *Chorionicity, congenital malformations, India, twins, zygosity.*

**T**he incidence of congenital malformations in twins ranges between 2% to 4.6% that is significantly higher than that in singletons(1-4). Monozygotic twins are reported to be more prone for malformations than dizygotic twins(2,5,6).

We conducted this study to determine the pattern of congenital malformations in twins born in our hospital over a 9 month period (January to September 2006). Gross congenital anomalies were recorded within 6 hours of birth by detailed clinical examination in all successively delivered  $\geq 23$  weeks twin babies, whether stillborn or live-born. Radiological and autopsy examinations were carried

out as and where indicated. All live twin babies stayed for 7 days in the NICU/ postnatal ward/ lying-in ward as per the unit protocols. They were examined daily and observed carefully for any fresh signs/symptoms. Zygosity was determined with the help of sex, placental chorionicity and 7 blood group phenotypes(7).

During the study period, 7147 mothers ( $\geq 23$  wk) delivered; of whom there were 133 twin pairs. The rate of twinning was 1 in 53.7 pregnancies. Out of 133 twin placentae, 117 were dichorionic and 16 were monochorionic. Zygosity could be determined in 110 pairs; 81 dizygotic and 29 monozygotic twins(7).

Nine (3.4%) twin babies had congenital anomalies. One pair had acardiac twin (TRAP sequence) which was confirmed on autopsy. A possibility of hydrolethrus syndrome was kept in another baby (cluster of anomalies including gross hydrocephalus, cleft lip/palate and polydactyly). Other malformations seen were duodenal atresia ( $n=1$ ), inguinal hernias ( $n=2$ ) and congenital-talipes-equinovarus ( $n=4$ ). All these 9 malformed babies were live-born, except for the acardiac twin.

The incidence of congenital malformations in female and male twin babies was 3.1% (4/129) and 2.9% (4/136) respectively ( $P=0.07$ ). Malformations were present in 3.1% (1/32) monochorionic and 3.4% (8/234) dichorionic twins, which was