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Congenital Pneumonia Caused by *Klebsiella pneumoniae*

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Pneumonia presenting at birth or occurring within first 48 hours of life is most commonly caused by *E. coli, Streptococci, Klebsiella aerobacter* or *Enterococci(1).* Congenital pneumonia produces intrauterine death in 16-20% of neonates(l). Early diagnosis and adequate treatment can reduce the mortality to a great extent. We report a case of congenital pneumonia caused by *Klebsiella pneumoniae* with successful outcome.

A three hour old, fullterm neonate delivered vaginally weighing 2.36 kg, presented with severe respiratory distress from time of birth. There was no history suggestive of birth asphyxia. Antenatally, the mother had irregular fever for 15 days prior to child birth. On examination, the baby was in severe respiratory distress with respiratory rate of 176 per minute with severe indrawing of chest wall. There were no auscultatory findings in the respiratory system. The chest X-ray showed bilateral infiltrates suggestive of pneumonia (*Fig. 1).* A diagnosis of congenital pneumonia was made.

Investigations showed a hemoglobin level of 12 g/dl, total leukocyte count 6,400 cells/cu mm with 74% neutrophils and 25% lymphocytes, and ESR 22 mm/hr. The absolute band cell count was 650 and toxic granulations were seen in the peripheral smear. Platelets were adequate. The blood culture of the baby and mother's vaginal swab culture were sterile. Culture of the throat swab yielded *Klebsiella pneumoniae* sensitive to cefotaxime and amikacin. The child was treated with parenteral cefotaxime in the dose of 125 mg twice daily and amikacin 20 mg twice daily for 14 days.

A steady decrease in respiratory rate was noticed after 2 days and by the 4th day, the child was able to suck at the breast. On the 14th day of treatment, a repeat chest **X-**

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Received for publication: August 12, 1993; Accepted: June 2, 1994,

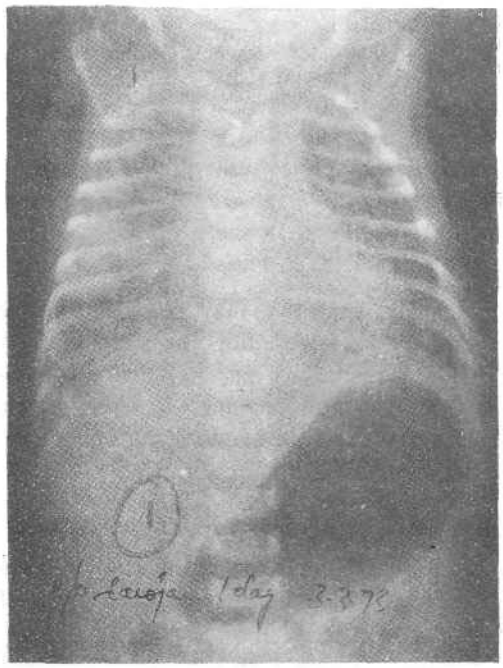

Fig. 1. Chest X-ray taken at 3 hours of age showing bilateral diffuse opacities.

ray showed clearance at which time the patient was discharged on exclusive breastfeeding and child gaining adequate weight.

Discussion

Klebsiella is a common primary invader in debilitated and immune-suppressed patients. This organism producing congenital pneumonia is being increasingly recognized(l). The exact incidence is not known. In the nursery and neonatal wards, it can occur as nosocomial infection through contaminated fomites, nursery equipments, aerosol apparatus and ventilators. Diarrhea and vomiting may be the presenting symptoms and onset of respiratory difficulty is usually abrupt. The clinical course is often fulminent. Copious thick purulent bronchial secretions and the formation of pulmonary abscesses and cavitations are characteristic of Klebsiella pneumonia in the older child. Chest skiagrams with lobar infiltrates and bulging interlobar fissure is suggestive of Klebsiella pneumonia. Diagnosis is by isolation of the organism from the purulent tracheal secretions, blood or lung aspirate. However, in newborns, the radiological picture can resemble[8] congenital pneumonia produced by Group 'B' streptococcus(2). *Klebsiella aerobacter* yield from the throat swab culture is diagnostic in the newborn(3). Klebsiella producing congenital pneumonia is an important clinical situation. Since this disease can rapidly progress and is potentially lethal(4,5), combination of a third generation cephalosporin and aminoglycoside is the treatment of choice(4). Early detection and aggressive antibiotic treatment with good supportive care helped recovery from this potentially lethal condition.

Acknowledgements

We thank all the members of Davangere Pediatric Research Foundation for their help.

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Artery to Artery Twin Disruption Sequence

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"Artery to Artery Twin Disruption Sequence" is a very rare congenital developmental malformation. This term was coined for the first time by Benirschke(l). Very few studies have concentrated their efforts to find out the incidence of this type of congenital malformation in the community. In 1989, Mohanty *et al.* reported an incidence of this malformation to be 0.01%(2).

This Artery to Artery Twin Disruption Sequence is a constellation of features due to absence of body parts because of their incomplete morphogenesis. These variably missing tissues include the head, heart, upper limbs, lungs, pancreas and upper intestine. The donor twin may have an extensive cardiac load resulting in cardiomegaly with secondary liver dysfunction, hypoalbuminemia and edema. We report here a case that has most of the major abnormalities.

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Received for publication: July 8, 1991;
Accepted: June 8, 1994

Case Report

This baby was the fourth child of twin delivery of non-consanguineous marriage of

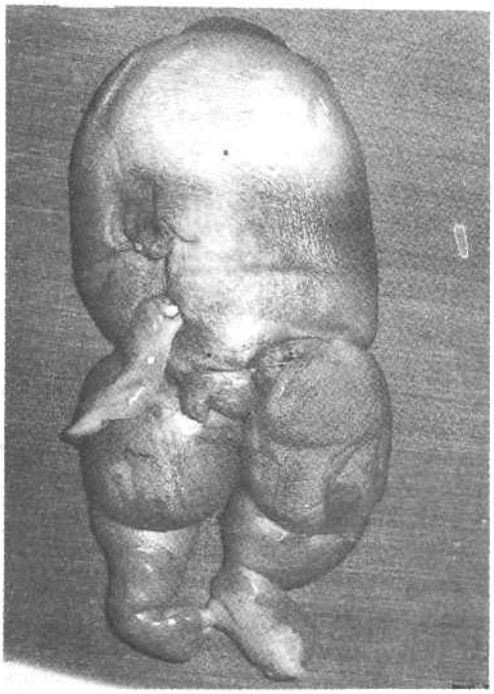

Fig. 1. Photograph showing absence of head, neck and both upper limbs, with normal trunk and both lower limbs.