Hypo-pharyngeal distension in an extremely low birth weight preterm infant

A preterm male infant was born at 25 weeks gestation weighing 780 g by emergency caesarean section to a multiparous woman presenting in active labour with breech presentation. The infant needed some initial resuscitation by bag and mask ventilation followed by commencement of nasal bubble continuous positive airway pressure (CPAP) in the delivery room. Orogastric tube was placed without difficulty soon after birth. Due to a progressive increase in oxygen requirement, he was intubated by 3 h of life and surfactant was administered. He was successfully extubated back to CPAP by 8 h of age. On the third day of life a chest X-ray (CXR) revealed evidence of residual respiratory distress syndrome (RDS) and also an incidental finding of dilated hypopharynx. On review of this infant's prior CXRs, there was dilated hypo-pharynx only on CXRs performed while the baby was on CPAP but not while intubated, with marked dilatation on the fourth day of life (figure 1). To our knowledge, ours is the second neonatal unit to report the presence of dilated hypopharynx with early CPAP delivery in preterm extremely low birth weight (ELBW) infants. In a unit that used nasal CPAP as their initial treatment of RDS in ELBW infants, gaseous distention of the pharynx and oesophagus was a relatively common occurrence.[1] In this era of increased usage of CPAP in ELBW infants to reduce ventilator-associated lung injury and chronic lung disease,[2 3] an awareness that CPAP-related hypo-pharyngeal distention is common may help avoid unnecessary invasive investigations to rule out rare causes like oesophageal obstruction or hypo-pharyngeal perforation.

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Competing interests None declared.

Patient consent Obtained.

Provenance and peer review Not commissioned; internally peer reviewed.

To cite Sinha B, Castro-Aragon I, Wachman EM, *et al*. *Arch Dis Child Fetal Neonatal Ed* Published Online First: [*please include* Day Month Year] doi:10.1136/archdischild-2015-308247

Received 16 January 2015
Revised 17 March 2015
Accepted 25 March 2015

Arch Dis Child Fetal Neonatal Ed 2015;**0**:F1. doi:10.1136/archdischild-2015-308247

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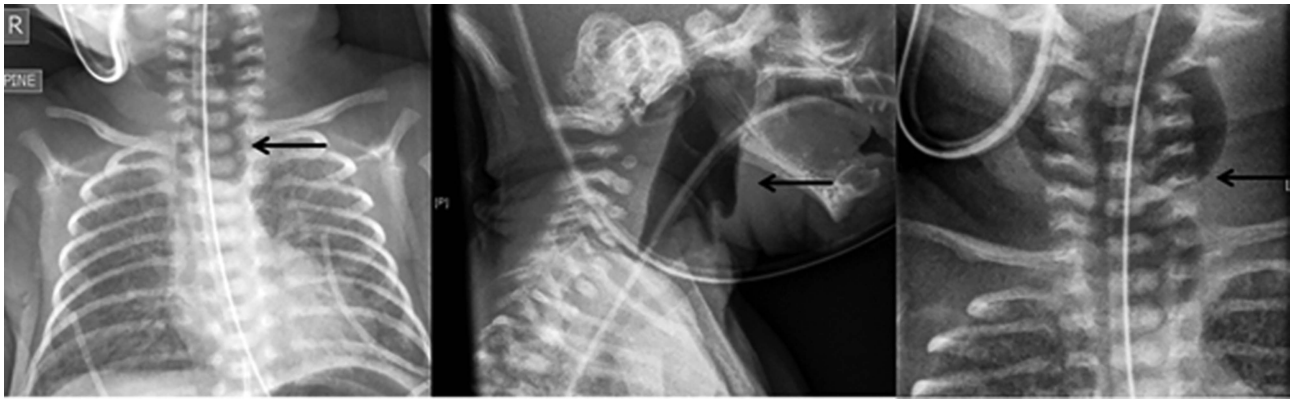

Figure 1 Hypo-pharyngeal distension with CPAP therapy.