Table 1 Clinical characteristics of the 20 fetuses diagnosed with non-progressive isolated 10–12 mm lateral ventriculomegaly who were followed up postnatally

	All subjects, n = 20	Subjects with impaired neurological outcome, n = 4	Subjects with impaired neurological outcome who later recovered, n = 2		Subjects with impaired neurological outcome, n = 2	
			Fetus 1	Fetus 2	Fetus 3	Fetus 4
Sex, male/female	14/6	1/3	F	F	M	F
Gestational age at diagnosis, weeks	24.5 (SD 3.8), 18–32	25.5 (SD 4.2), 21–30	23	28	21	30
Type of lateral ventriculomegaly, ML/BL	11/9	2/2	ML	BL	BL	ML
Lateral ventriculomegaly at birth	8, resolved (6 ML, 2 BL) 12, persistent (6 ML, 2 BL)	2, resolved (1 ML, 1 BL) 2, persistent (1 ML, 1 BL)	Persistent	Persistent	Resolved	Resolved
Right lateral atrium width, mm	10.0 (SD 1.2), 6.6–12.0	10.4 (SD 0.5), 10.0–11.0	11.0	10.8	10.0	10.0
Left lateral atrium width, mm	9.5 (SD 1.6), 7.0–12.0	8.8 (SD 2.1), 7.0–11.2	7.0	11.2	10.0	7.0
Difference between lateral atrial widths, mm	1.63 (SD 1.56), 0–3.7	1.85 (SD 1.95), 0–4.0	4.0	0.4	0	3.0
Gestational age at birth, weeks	37.5 (SD 2.3), 34–42	37.5 (SD 0.6), 37–38	38	38	37	37
Weight at birth, kg	3.1 (SD 0.65), 2.0–4.65	3.0 (SD 0.5), 2.2–3.4	3.0	2.2	3.4	3.3
Apgar score at 1 min	7.9 (SD 1.02), 7–9	8.2 (SD 0.95), 7–9	8	7	9	9
Apgar score at 5 min	8.9 (SD 0.82), 7–10	9 (SD 0.81), 8–10	9	8	10	9
Age at first Griffith test, months	26.15 (SD 24.25), 3–75	7 (SD 4.9), 3–13	13	9	3	3
Age at last Griffith test, months	42.7 (SD 25.82), 13–95	22.5 (SD 8.8), 15–32	32	28	15	15

Values are mean (SD), range. BL, bilateral; ML, monolateral.

Surfactant replacement after acute massive milk aspiration in a very low birthweight infant

Massive milk aspiration during infant feeding is a severe event causing respiratory distress, asphyxia and sudden death.[1] To date, only experimental models have shown that administration of exogenous surfactant is a successful treatment for acute lung injury induced by acidified formula, or human breast milk, aspiration.[2 3] We describe a case of massive milk aspiration successfully treated with surfactant administration in a very low birthweight infant.

CASE REPORT

A 1180 g male infant of 30 weeks' gestation was delivered by caesarean section due to variable decelerations in cardio-tocographic readings. The infant's Apgar scores were 8 and 9 at 1 and 5 min, respectively. An umbilical venous catheter was placed, parenteral nutrition started and empiric antibiotic therapy (ampicillin plus gentamicin) instituted. The infant did not need respiratory support or supplemental oxygen after delivery and started enteral feeding on day 1.

On day 11, the infant vomited while being fed breast milk by gavage. The pharynx and the stomach were drained at once and immediately afterwards a bronchoaspiration was performed resulting in milk outflow. A chest radiograph showed massive milk inhalation. The infant required intubation and assisted ventilation because of severe respiratory distress. By 36 h after milk inhalation, the fraction of inspired oxygen (FiO_2) had gradually increased to 0.95 and the alveolar-arterial oxygen difference ($AaDO_2$) was ~565 mm Hg.

Following administration of one dose of natural porcine lung surfactant (~200 mg/kg), FiO_2 decreased to 0.50 ($AaDO_2$ ~245 mm Hg) and peak inspiratory pressure (PIP) was reduced from 20 to 16 cm H_2O. By 8 h after administration of surfactant, FiO_2 had declined to 0.40 and it was possible to switch from assisted to synchronised intermittent mandatory ventilation (rate 30/min). A second dose of surfactant (~100 mg/kg) was given 12 h after the first; the PIP was further reduced to 14 cm H_2O and the oxygen requirement decreased to 0.35 ($AaDO_2$ ~140 mm Hg). Owing to the persistent oxygen demand, a third dose (~100 mg/kg) was delivered and a slight decrease in FiO_2 (to 0.30) and $AaDO_2$ (to ~100 mm Hg) was registered.

By 48 h after the beginning of surfactant therapy, FiO_2 was 0.23 and the infant's clinical condition was continuing to improve. The infant was extubated and treated for a further 8 h with nasal continuous positive airway pressure (FiO_2 0.30). After 2 more days of supplemental oxygen, O_2 therapy was discontinued because blood oxygen saturation in room air (~93%) was satisfactory. The infant was discharged home on day 50. He is now 2 years old and shows normal growth and neurological development at ongoing follow-up examinations.

In our single experience, natural porcine lung surfactant proved to be very effective in reducing $AaDO_2$ and improving pulmonary compliance. We performed "late" surfactant replacement therapy because of our uncertainty about its possible effectiveness; however, "early" replacement therapy or a bronchoalveolar lavage with diluted surfactant, as in meconium aspiration syndrome,[4] may be a possible alternative.

F Natale, F Calzolari, A Castronovo, L Guadalupi, M De Curtis

Department of Pediatrics, "La Sapienza" University of Rome, 00161 Rome, Italy

Correspondence to: Dr Fabio Natale, Neonatal Intensive Care Unit, Department of Pediatrics, University of Rome "La Sapienza", Viale Regina Elena 324, 00161 Rome, Italy; fab.natale@libero.it

Competing interests: None.

Accepted 30 January 2009

Arch Dis Child Fetal Neonatal Ed 2009;**94**:F312. doi:10.1136/adc.2009.158808

REFERENCES

1. **Jeffery HE,** Rahilly P, Read DJ. Multiple causes of asphyxia in infants at high risk for sudden infant death. *Arch Dis Child* 1983;**58**:92–100.
2. **Nishina K,** Mikawa K, Takao Y, *et al*. Effects of exogenous surfactant on acute lung injury induced by intratracheal instillation of infant formula or human breast milk in rabbits. *Anesthesiology* 1999;**91**:240–52.
3. **Kobayashi T,** Tashiro K, Cui X, *et al*. Experimental models of acute respiratory distress syndrome: clinical relevance and response to surfactant therapy. *Biol Neonate* 2001;**80**(Suppl 1):26–8.
4. **El Shahed A,** Dargaville P, Ohlsson A, *et al*. Surfactant for meconium aspiration syndrome in full term/near term infants. *Cochrane Database Syst Rev* 2007;(3):CD002054.

CORRECTION

doi:10.1136/adc.2008.152322corr1

In the letter "Benchmarching neonatal anthropometric charts published in the last decade" in *Arch Dis Child Fetal Neonatal Ed* 2008:**94**:F233, the author's name is M De Curtis and not DeCurtis as published.