UC DAVIS HEALTH | CHILDREN'S HOSPITAL

Management of CDH- Brief Outline

See full CDH management document on PCG website for additional details

Management strategy	Parameters or targets	Comments
Prenatal consult	• Lung volume estimation (MRI or ultrasound) – O/E LHR ratio • Location of the liver • Side of CDH • Associated anomalies	Poor prognosis with O/E LHR ratio <0.25, liver up or right-sided CDH
Delivery room huddle	• Review antenatal imaging findings • Cord management plans • Gestational age	Delayed cord clamping (60-120 sec) if infant is not in need of immediate resuscitation. Umbilical cord milking (2-4 times) in term CDH in need of resuscitation.
Neonatal resuscitation	• Intubate with a Microcuff or uncuffed ETT (no mask CPAP or PPV) at 5.5 + estimated weight (kg) • Orogastric tube placement • FiO_2 0.3 to 0.5 and titrate to preductal SpO2 85-95% by 5-10 min	Short, compliant trachea (high deadspace)
Sedation	• Morphine 0.1 mg/kg IV (or IM) ASAP	Infusion 0.025 mg/kg/h or boluses
Initial ventilation	• Conventional with PEEP 3 to 5 cmH_2O; Volume guarantee-4 to 5 ml/kg; high rate: 40-60/min; low I-time: 0.3 sec	HFJV: PEEP: 6-8, Paw: 10-12, PIP: 20-25, Freq: 360-420, I-time: 0.02 sec. HFOV: Paw: 10-12 (avoid >16), Amp: 24-28, Freq: 8-10 Hz.
Chest X-ray	• Lung expansion: Contralateral lung to 9 ribs	• Check line position
Pulmonary vasodilator therapy	• If no LV dysfunction, iNO at 20 ppm for OI > 15 and evidence of PH on echo • If ventricular dysfunction: start milrinone at 0.33 mcg/kg/min and titrate up to 0.66 to 1 mcg/kg/min and monitor systemic BP	If no ventricular dysfunction, and iNO is not effective, start sildenafil IV at 0.14 mg/kg/h x 3 h and then 0.07 mg/kg/h. Post-op with persistent PPHN, consider oral bosentan
Systemic hypotension	Without LV dysfunction: Norepinephrine (preferred) Vasopressin (if serum sodium is normal and urine output is good)	With LV dysfunction: Epinephrine (preferred) Dopamine

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