LETTERS TO THE EDITOR

Colposcopic genital findings in prepubertal girls assessed for sexual abuse

EDITOR,—We would like to respond to the commentary on our paper.¹ The diagnosis of child sexual abuse (CSA) is a jigsaw which includes physical signs and in Leeds is multi-disciplinary. The NHS, free at point of contact, health visiting, and case conference systems are important differences between British and US child protection practice.² In the UK, early referral of cases for paediatric examination and follow up (including re-examination) has taught us much about the progression of abuse and evolution of signs. Agreement on physical signs in CSA is likewise evolving here,³⁻⁴ utilising experience on both sides of the Atlantic. Peer review and a national paediatric child protection interest group are established. Earlier publications, with photographs, have described our population and practice.⁵⁻⁷ An atlas of physical signs is in press.⁸ Psychosocial information is part of all assessments (and research) and our case categories reflect this. Our references¹ indicate agreement with US colleagues on the significance of many findings. However, we take issue⁹ with papers¹⁰ which do not follow usual clinical practice but suggest that most children have 'normal' findings.

The commentary is misleading on a number of issues. For example, the statement: 'most [CSA] examiners would not agree that transverse hymenal diameter greater than 4 mm should be considered a sign of abuse', misconstrues the point. The Royal College report notes that 'the most commonly held view is that an orifice greater than 4 mm in the pre-pubertal girl is strongly correlated with abuse'.^{3, 11-13} The fact that there are considerable differences in hymenal diameters in studies of non-abused girls is not quoted and it is unclear why those of McCann *et al* have been favoured.¹⁴ Space does not allow a full analysis of every point but a further example of the commentary adopting an over inclusive and superficial approach is the statement that labial fusion is non-specific. It would be more informative to state that short labial adhesions may be common and innocent in infants in nappies but longer and thick fusion in older girls is much more unusual.

Our paper is a detailed descriptive study of children in whom sexual abuse was the major concern. It is worrying that the commentary suggests that, as there are no American published series describing gaping vaginal openings or dilated urethras, our observations are invalid. Why have such obvious findings not been described by other examiners? Further, a gaping opening appears to be associated with loss of hymenal tissue and should be important. Common sense dictates that if objects are repeatedly inserted into children, gaping or dilated orifices may result. There is also evidence cautiously emerging that a prolapsed urethra (and anus) may follow trauma.

While conflict remains in the literature on physical signs, it is hoped that those who would wish to put a strait jacket around this area of paediatric practice should not be

allowed to stifle careful observation based on sound clinical practice, which remains a vital part of good research. Physical signs will always have to be interpreted within the full clinical and social picture. We agree that there is still much for us all to learn.

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Transfer of critically ill patients with inhaled nitric oxide

EDITOR,—Inhaled nitric oxide (INO), a selective pulmonary vasodilator, has been shown to improve oxygenation and haemodynamic status in cardiorespiratory failure.¹⁻³ However, such patients often become dependent on this treatment during the first few days of administration, making the sudden discontinuation of the INO dangerous.

We have so far administered INO to nine patients (ages 6 hours to 4 years) during inter-hospital transport to our centre for extracorporeal membrane oxygenation (ECMO). Eight of these have been by road ambulance and one by air ambulance. Six of these patients were neonates with persistent pulmonary hypertension of the newborn and three were older infants and children with respiratory syncytial virus bronchiolitis, acute respiratory distress syndrome, and pulmonary hypertension complicating a cystic adenomatous malformation of the lung (CAM). Three of the patients were already receiving INO at their referring hospital and could not be weaned before transfer due to marked desaturation (arterial oxygen saturation <60%).

The other six patients were given a trial of INO at the referring hospital by the transport team in order to optimise oxygenation before transfer. All six had a significant response to a test dose of INO (20 ppm × 20 minutes) as defined by a greater than 10% improvement in arterial oxygen tension (mean (SE) before INO 5.2 (0.9) kPa and after INO 10.3 (3.2) kPa, $p < 0.05$).

There were no complications encountered during the transport of these patients on INO. Four of the patients transferred were placed on ECMO support; all four survived. The other five were left on INO treatment; three survived. The one patient who died had CAM of the lung and the other familial primary pulmonary dysplasia.

During the transports described above, the INO was introduced into the inspiratory limb of the ventilator (Draeger Bablog 2 or Oxylog).

With these ventilators gas flow changes with ventilator settings. Therefore changes in parameters such as peak inspiratory pressures, ventilator rate, minute volume and inspiratory: expiratory ratios will result in significant alterations to the concentration of INO. For this reason it is essential to monitor continuously the dose of INO being delivered. During transport we measure INO with a portable electrochemical nitric oxide analyser (Bedfont Scientific Instruments) with gas being sampled between the ventilator tubing and the endotracheal tube.

In conclusion, critically ill mechanically ventilated patients can be safely transported on INO. Its ease of administration, rapid clinical effect and apparent lack of toxicity, provided gas concentrations are monitored, make it an attractive additional drug for use during interhospital transfer of critically hypoxic patients. If INO becomes an established treatment then tertiary intensive care units, and in particular ECMO centres, will need to transport such patients on INO. We believe it is essential to monitor continuously INO concentrations during such transfers.

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Microcephaly and childhood non-Hodgkin's lymphoma

EDITOR,—Between 1968 and 1994 nine out of 194 newly diagnosed cases of non-Hodgkin's lymphoma seen at our department had microcephaly. The literature contains reports of associations between non-Hodgkin's lymphoma and immunodeficiency (congenital and acquired), chromosome instability syndromes, and malformations including microcephaly (Seemanova's syndrome).¹⁻⁵