

The Paediatric Pathology Society Abstracts for Poster Presentations

76 An Eight Year Review of Perinatal Deaths with Pulmonary Hypoplasia.

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80 cases of pulmonary hypoplasia were found in a review of 956 perinatal necropsies between 1976 and 1983. 63 of these were liveborn but most died on the first postnatal day. 44 were derived from 587 necropsies on inborn patients, representing an incidence of 1.2 per 1000 births. 36 cases were found amongst 369 deaths in infants admitted for care from the region. Hypoplasia was diagnosed on the basis of lung weight and histological maturity in comparison with the body weight

and gestational age. 37 cases (46.3%) were associated with a diaphragmatic hernia. In 12 of these pulmonary hypoplasia was unilateral and in 25 it was bilateral. The remaining 43 cases all showed bilateral hypoplasia; 32 in association with major malformation elsewhere, 21 of which were renal. There were 5 cases of bilateral renal agenesis and 7 cystic renal dysplasias. Non-renal associated malformations included neural tube defects, trisomies and limb anomalies. Bilateral pulmonary hypoplasia with no other malformation occurred in 11 cases (13.8%). Two of these had hydrops fetalis, three were seen with oligohydramnios and one with hydramnios. Such infants are a cause of apparently unexplained respiratory distress in the newborn.

77 THE EPIGLOTTIS AS AN INDICATOR OF UPPER RESPIRATORY TRACT INFECTION IN SUDDEN INFANT DEATHS

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Studies in newborn ferrets inoculated intranasally with influenza virus demonstrate sequential descending pathological changes in the ciliated epithelium of the nasal sinuses, nasal passages, trachea, bronchi and bronchioles. Prior to the onset of typical acute inflammatory lesions these are characterised by a change in the structure of the epithelium and cellular morphology - a cytopathic effect.

Clinical evidence of an upper respiratory tract infection is common in infants and is frequently mentioned by parents of sudden infant deaths (SIDS). Since there is commonly a delay in performing autopsies on such infants the likelihood of successful virus isolation is reduced. Furthermore not all centres examining SIDS have adequate virological services available. It is possible to remove the relevant parts of the upper respiratory tract at autopsy but this is both time consuming and on occasion disfiguring. However the epiglottis is invariably available at autopsy and a standard block is easily prepared. The technique and findings in a series of SIDS are presented and it is suggested that histological examination of the epiglottis should be a routine procedure in the investigation of all infant deaths.