Pathology

G146 A RARE CASE OF COLLAGENOUS GASTRITIS

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Collagenous gastritis is an uncommon and rare finding in the paediatric population. There are only few cases being reported in the literature regarding collagenous gastritis in children.

15-year-old girl was admitted with sudden onset of epigastric pain radiating to left shoulder. History of malena was present. Not on non-steroidal analgesic or previous similar episodes. Also she had excessive tiredness for the past year. Investigation revealed marked anaemia of microcytic hypochromic nature, requiring blood transfusion, and raised inflammatory markers. Investigations for infections were negative, as she had visited to Botswana. Endoscopy revealed severe form of acute gastritis and microscopically markedly increased inflammatory cells. Further histological evaluation showed evidence of collagen deposition in the gastric biopsy specimen. Colonoscopy was normal both macroscopically and histology. Repeat gastric biopsy after 6 months showed persistence of collagen deposition.

G147 MICROSCOPIC RESIDUAL DIFFERENTIATED TUMOUR POST THERAPY: A PROBLEM FOR PATHOLOGISTS AND ONCOLOGISTS

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Certain paediatric solid tumours are known to undergo maturation after chemotherapy and also spontaneously. When post chemotherapy a biopsy of the tumour site shows only foci of differentiated tumour, then there is a dilemma in deciding appropriate further treatment. This is compounded if these foci are not detectable clinically or by imaging, or are in surgically not excisable.

We present two cases which illustrate these difficulties.

Case A: An 8 month old girl presented with a blood stained vaginal discharge. Several small mucosal nodules up to 3mm on the postero-lateral vaginal wall were detected. Imaging showed a normal vaginal appearance. Biopsy of the nodules showed embryonal rhabdomyosarcoma and chemotherapy was given. Post chemotherapy the vagina appeared normal, but biopsies from the area revealed foci of differentiated rhabdomyoblasts, the undifferentiated component having disappeared. The opinions of several oncologists were sought and found to be conflicting.

Case B: A 14 month old male was found to have a pre-sacral mass thought to be a teratoma. Trucut biopsy showed neuroblastoma-like tissue and excision followed. The tumour was a differentiating neuroblastoma not completely excised microscopically. Follow up imaging showed several small nodules developing in the tumour bed but no elevation in tumour markers. Biopsy showed ganglioneuromatous tissue only. These nodules are not in a position to be easily excised.

It would be interesting to discuss how other clinical groups have dealt with similar cases.

G148 ASSOCIATION BETWEEN FETAL THROMBOPATHIC LESIONS AND VILLITIS OF UNKNOWN ORIGIN

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Aims: Obstructive fetal vasculopathy is known to be associated with fetal death, fetal growth retardation, cerebral palsy and other neurologic lesions. Chronic villitis has been reported in association with fetal death and fetal growth retardation. In the course of a study of the placenta and cerebral palsy we noted the frequent association between fetal vessel thrombosis and villitis of unknown aetiology presented in this preliminary report.

Materials and methods: 261 placentas, between 24 and 40 weeks of gestation were selected from a population based cohort of 12,500 placentas to include placentas of children with cerebral palsy or with a history suggesting vanished twin and three matched controls for each case. All placentas were examined by one observer blinded to the clinical data according to a standard protocol. At least eight blocks were taken for histology from each case. The thrombotic lesions were classified as fetal chorionic vessel thrombosis, single or multiple fetal stem vessel thrombosis, avascular villi, extensive avascular villi, haemorrhagic endovasculitis and intimal fibrin cushions. The findings were entered into a Microsoft Access database. Significance was calculated using the standardised incidence ratio.

Results: The frequency of avascular villi and fetal stem vessel thrombosis was significantly higher in cases with VUO than in cases without chronic villitis (30,2% n=19/63 versus 10,1% n=20/198, Odds ratio 2.99, 99% confidence interval of 1,43–6,23 and 23,8% n= 15/63 versus 8,6% n= 17/198, Odds ratio 2.77, 99% confidence interval of 1,21–6,38 respectively). The frequency of haemorrhagic endovasculitis showed a 1,58 fold increase in cases with VUO compared to those without VUO (4,8%, n=3/63 versus 3,03%, n=6/198). Intimal fibrin cushions occurred in 12,7% (n=8/63) of cases with VUO and in 9,6% (n=19/198) of cases without VUO.

Conclusion: The frequency of fetal vessel thrombosis and avascular villi was significantly higher in placentas with VUO than in placentas without villitis. The frequency of the other two lesions was increased in VUO but the association was not significant. These data suggest that chronic villitis may play an important role in the development of fetal thrombotic vasculopathy.

G149 INVESTIGATION OF SUDDEN UNEXPECTED DEATH IN INFANCY (SUDI) FOR INHERITED METABOLIC DISORDERS

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Infants who die suddenly and unexpectedly require thorough investigation in order to find a cause of death. This includes a detailed clinical history and post-mortem examination by a paediatric pathologist. Inherited metabolic disorders (IMD) often present in infancy with life threatening episodes. In view of the high mortality in infancy associated with IMD, they are a potential cause of sudden and unexpected death.

We have systematically investigated cases of SUDI (< 2 years of age) presenting via Birmingham Children's Hospital as part of a comprehensive multi-disciplinary protocol in collaboration with the Birmingham Coroner. The protocol included skeletal survey and laboratory investigations.

Over a 36 month period, we have examined and investigated 66 cases. Specimens collected included blood, urine and skin biopsy.

In all cases, quantitative plasma amino acids showed evidence of autolysis. Acyl carnitine analysis showed increases in free and short chain acyl carnitines. In three cases (4.5% total) we have diagnosed a specific IMD: long chain 3-hydroxyacylCoA-dehydrogenase deficiency (LCHADD) in a 7 month old boy, a case of carnitine transporter defect in a 10 month old girl, and a 3 day old girl with citrullinaemia. Seven additional cases had fatty acid and oxidation studies carried out in fibroblasts because acyl carnitine analysis (on blood) suggested the possibility of a disorder of fatty acid oxidation, but proved negative.

These findings support the need to thoroughly investigate all cases of SUDI and the importance of collecting skin biopsy to enable definitive diagnosis.

G150 PARENTS' VIEWS AND EXPERIENCE OF THE PERINATAL AUTOPSY

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Background and Aim: The recent events around the Bristol surgery inquiry and organ retention and consent at Alder Hey Hospital have shed a negative light on perinatal autopsy services. While the uptake, quality and value of postmortem examinations have been reviewed from the health professional's perspective, there is limited literature on the family's views of the perinatal autopsy. As part of an evaluation of a hospital based bereavement counselling service, offered to all those who have experienced a loss in pregnancy or infancy (including miscarriage or termination of pregnancy for antenatally diagnosed abnormality), we asked mothers about their experiences and perceptions of the postmortem examination.

Design: Cross-sectional survey.

Method: Self-completion postal questionnaire incorporating fixed-choice and open-ended questions.

Results: 166 (64.3%) respondents completed the questionnaire. One hundred and forty-eight (89.2%) said they were asked to agree to a postmortem on their baby, 120 of these respondents (120/148, 81.1%) agreed, most of whom recognised benefits resulting from the examination. One hundred and one (84.2%) respondents felt the findings had been explained appropriately. Nine (7.5%) of the 120 respondents who had agreed to a postmortem, regretted their decision. Of the respondents who refused a postmortem, four had regrets about their decision.

Discussion: Parents viewed the postmortem examination as a useful and necessary tool in helping to elucidate the reasons why their baby had died. Simplifying the language used to explain findings may further raise parents' understanding of the value of, and ensure satisfaction with, the postmortem examination. Those involved should be fully trained in how to ask for parental consent, the autopsy procedure and how to explain the findings.