p=0.011). And the peak level of AST (68.72±68.00 vs. 106.67±79.09 IU/L, p=0.008) and ALT (30.92±29.72 vs. 53.70±40.86 IU/L, p=0.002) were significant lower in the FOLE group compared with the FOLE group. However, the peak levels of serum triglyceride were similar. (245.22±128.47 vs. 226.97±99.49 mg/dL, p=0.747).

**Conclusions** The use of FOLE in VLBW infants may reduce the risk of PNALD.

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## ADEQUATE POSTNATAL DIAGNOSTIC MODALITIES FOR PRENATALLY DIAGNOSED BILIARY CYSTIC MALFORMATIONS

doi:10.1136/archdischild-2012-302724.0720

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**Background and Aims** The aim of this study was to determine an appropriate postnatal diagnostic management plan for prenatally diagnosed biliary cystic malformation (BCM) patients.

**Methods** From 2002 to 2011, a total of 27 consecutive children with pancreaticobiliary maljunction (PBM) were treated at our institute. Eight (29.6%) of our 27 patients with choledochal cyst (CC) were diagnosed prenatally and examined clinically. Prenatally diagnosed cystic biliary atresia (BA) was noted in 2 patients with type 1 cystic BA. The clinical data, preoperative imaging findings, and final diagnosis using intraoperative cholangiography were evaluated in these BCM patients.

**Results** Infants with prenatally diagnosed CC were divided into two groups after birth: a symptomatic group of 5 patients, and an asymptomatic group of 3 patients. According to CC patients, ultrasonography (US) did not reveal a PBM in all 8 CC patients, although the main pancreatic duct was shown in 2 CC patients. The PBM and main pancreatic duct were shown by MRCP at high rates of 80 and 60%, respectively, compared with US and dynamic CT. In cystic BA patients, US and MRCP showed that the gallbladder was atrophic in both of the two cystic BA patients compared with the CC patients. There was not triangular cord sign in the two by US.

**Conclusion** This study clearly showed that, in some cases, such as prenatally diagnosed BCM, MRCP eliminates the need for endoscopic retrograde cholangiopancreatography (ERCP) because of its excellent sensitivity and specificity, thus avoiding an invasive procedure with marked radiation exposure.

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## THE EFFECT OF THE RED WINE POLYPHENOL RESVERATROL ON CHOLESTASIS: ANTI-APOPTOTIC, MITOCHONDRIAL BIOGENESIS AND AUTOPHAGY

doi:10.1136/archdischild-2012-302724.0721

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**Background and Aims** Mitochondria are known to be involved in cholestatic liver injury. The potential protective effect of resveratrol in cholestatic liver injury and the possible roles of autophagy and apoptosis induction in this process are not yet clear. The aim of this study is to determine whether resveratrol administration after bile duct ligation can reduce cholestasis-induced liver injury through modulating apoptosis, mitochondrial biogenesis and autophagy.

**Methods** A rat model of cholestasis was established by bile duct ligation (BDL) and compared with a sham group receiving laparotomy without BDL, with resveratrol or control treatments following BDL. The expression of proteins involved in the apoptotic and autophagic pathways were analyzed by western blotting. Apoptosis was examined by TUNEL staining.

**Results** In the resveratrol/BDL group LC3-II upregulation persisted for 1–7 days, Bax was downregulated and catalase was

upregulated at 3–7 days after resveratrol treatment. The decline in mitochondrial DNA copy number was reversed at 3–7 days. Caspase 3 expression was significantly downregulated at 3–7 days in the resveratrol group. TUNEL staining showed significant numbers of apoptotic liver cells appeared in livers 3–7 days after BDL and that was decreased by resveratrol treatment.

**Conclusions** Our results indicate that early resveratrol treatment reverses impaired liver function within hours of BDL.

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## HETEROGENEITY IN THE DIAGNOSIS OF COELIAC DISEASE IN PAEDIATRIC PATIENTS

doi:10.1136/archdischild-2012-302724.0722

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**Background** "Gluten intolerance" is commonly diagnosed and often confused in the public mind with coeliac disease. Authors in Western Australia recently demonstrated an approximately 5% rate of coexistence of eosinophilic oesophagitis (EO) with villous atrophy. We asked whether our population was similar.

**Methods** We performed a retrospective chart review of all those with gastroscopy and small-bowel biopsy and a subsequent diagnosis of CD in children less than 16 years of age between 1 April 2003 and the 31st of June 2011.

**Main results** 239 gastroduodenoscopies were reviewed. Biopsy of both the oesophagus and duodenum was available in 231 patients. There were 124 patients positive for coeliac disease, 105 negative, and 10 indeterminate. 14 of 231 were positive for EO, and 4 of the 126 CD patients were also positive for EO. Two of the four CD + EO patients were rescoped during the time interval, and both were in remission for changes of CD, although both still had changes of EO evident. There were 7 CD patients reported with other forms of oesophageal inflammation.

Histologically of our four patients with EO and villous atrophy, at least three have potentially allergic changes instead of full-blown CD.

**Conclusion** There have been recent suggestions that serological and other tests may render the small bowel biopsy unnecessary in the management of CD. We note that EO is associated with villous atrophy in 3 to 4% cases. Serology and symptomatology presenting as coeliac disease continues to warrant detailed investigation, including endoscopic work up.

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## REVIEW OF TTG VERSUS SMALL INTESTINAL BIOPSY RESULTS; DO WE STILL NEED DUODENAL BIOPSY TO DIAGNOSE COELIAC DISEASE?

doi:10.1136/archdischild-2012-302724.0723

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**Aims** To assess compare the results of tissue transglutaminase (tTg) with small intestinal biopsy results in children who had oesphageogastroduodenoscopy (OGD) to assess for coeliac disease (CD) at the National Children's Hospital, Tallaght, between January 2008 and December 2009.

**Methods** We reviewed the patients' records for all OGDs performed to assess for CD during the study period. Small intestinal biopsy results versus the tTg results were recorded.

**Results** 61 patients had an OGD performed during this period for assessment for CD (age 2–15 years). Three were excluded because no tTg was performed or recorded. Of these, 26 patients were males with male to female ratio of 0.8:1.

Fifty eight patients were included in the study, 32 had positive intestinal biopsy.