Taiwan, were classified with severity score. The severity score is composed of three parameters:

1. C-reactive protein ≤ 3 mg/dL; $> 3, \leq 6$; > 6 : 0; 1; 2
2. Band cells in blood $\leq 5\%$; $> 5, \leq 10$; > 10 : 0; 1; 2
3. Days of fever before admission < 3 days; ≥ 3 : 0; 1

Score greater than 3, 2 or 3 and ≤ 1 was considered severely, moderately and mildly ill respectively. Mildly ill salmonellosis patients treated with or without antibiotics were collected. All patients were followed until two consecutive rectal swabs were negative for *Salmonella*. The demographic data, clinical manifestations, laboratory data, response to treatment and duration of fecal excretion of *Salmonella* were recorded.

Results: Fifteen patients were enrolled into the study and six patients were in antibiotics treatment group. The demographic data, clinical manifestations and laboratory data were comparable between two groups. Significantly longer days of fever after admission, longer hospitalization days and longer days of fecal excretion in the antibiotics treatment group.

Conclusions: Antibiotics are not mandatory for the subset of nontyphoid salmonellosis children with low severity score.

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NECROTISING ENTEROCOLITIS: HAEMATOLOGICAL MARKERS OF MORTALITY

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Introduction: Necrotizing enterocolitis (NEC) is a devastating disease that affects premature neonates. Associated mortality has not changed appreciably over the past several decades. The underlying aetiology of NEC remains elusive, although bacterial colonization of the gut, formula feeding, and perinatal stress have been implicated as risk factors. We aimed to characterize the role of haematological indicators in predicting mortality from NEC.

Methods: A prospective database of infants with Necrotising enterocolitis Bell's staging ≥ 1 was used to identify eligible infants. Laboratory records were used to establish which infants had a full blood count (FBC) and C-reactive protein (CRP) before, at and after the diagnosis of NEC.

Results: 67 infants were eligible for inclusion with NEC and FBC results available pre and post diagnosis. The mean birth weight was 1.2 ± 0.7 kg and gestation 29.3 ± 5.8 weeks with an age at onset of NEC of 18 ± 14 days. IT ratio decreased significantly from maximum levels at diagnosis of NEC in surviving infants but continued to increase in those who died. WBC, Platelets (Plts) and immature neutrophils were also significantly altered between survivors and non-survivors. Prophylactic indomethacin use and intestinal perforation were increased in non-surviving infants. Gestational age, birthweight, antenatal steroid use, mode of delivery did not differentiate survivors and non-survivors.

Conclusions: Prediction of infants with NEC who will develop intestinal perforation and have an increased mortality risk would be useful in clinical practice to allow early surgical referral. Persistent alterations in inflammatory markers may signify infants who may have increased risk of mortality.

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IRON DEFICIENCY ANEMIA ASSOCIATED WITH HELICOBACTER PYLORI GASTRIC INFECTION IN CHILDREN

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Background: An association between *Helicobacter pylori* (H.pylori) infection and iron deficiency anemia has been reported recently in children.

Aim: To investigate a causal association between H. pylori infection and iron deficiency anemia.

Methods: Four patients, boys aged between 6 and 14 years, were admitted for severe pale without gastrointestinal symptoms. An extensive initial work-up was ordered that included the hematologic profile, multiple stool examinations for parasites and H.pylori antibody. Endoscopy was performed and antral biopsy specimens were taken for rapid urease test and histology. Eradication therapy was administered for 2 weeks. Oral iron therapy was

prescribed after eradication. The hematologic profile were assessed after the iron therapy.

Results: We present four patients with iron deficiency anemia and poor nutritional iron intake, gastrointestinal bleeding, chronic inflammation were excluded on the basis of specific tests. Iron deficiency anemia was defined as a hemoglobin concentration of less than 12 g/dl (6.3-7.0 g/dl), serum iron concentration less than 6.6 μ mol/L (3.4-4 μ mol/L), a serum ferritin concentration less than 20 ng/ml (10-17 ng/ml). IgG antibody titer to H.pylori was positive in all the patients. Upper gastrointestinal endoscopy revealed a marked antral nodularity. A rapid urease test result was positive. Histopathology revealed chronic gastritis. H. pylori was successfully eradicated. Oral iron therapy was prescribed and 3 months later hematologic profile normalized.

Conclusions: A diagnosis of H. pylori infection should be taken in children with iron deficiency anemia even in the absence of gastrointestinal symptoms. H. pylori infection is a risk factor for iron deficiency anemia.

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THE USE OF MR ENTEROGRAPHY IN CHILDREN WITH CROHN'S DISEASE

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BACKGROUND: Ionizing techniques are frequently used in the evaluation of disease activity in children affected by inflammatory bowel disease (IBD). Magnetic Resonance enterography (MRE) is an interesting new imaging modality avoiding ionizing radiation and the discomfort associated with enteroclysis.

Methods: After fasting for at least 4 hours, bowel distention was achieved by ingesting 1 liter of a 2.5% mannitol solution. MRI was performed with a 1.5 T system (Philips Achieva) and a phased-array torso-XL coil. The examination was completed with administration of an IV spasmolyticum. During the examination 1 MR-technician provided patient support.

Results: 5 children (2 girls), aged 12.3 ± 1.6 years, underwent MRE. 4/5 were newly diagnosed patients. The exam was well tolerated in all children. The MR-sequences were taken in 10-15 min. Overall image

quality was good with sufficient bowel distension in the jejunum and excellent distension of the ileum. 1 patient (12.4y) had difficulties with breath-hold resulting in motion artefacts; the examination was however of diagnostic quality. MRI enterography revealed lesions of jejunum, preterminal or terminal ileum, caecum and rectosigmoidum in resp. 1, 2, 5, 1 and 1 patient. MR could detect lesions such as bowel wall thickening and oedema, deep ulceration, pseudo-diverticula, hyper-enhancement of bowel wall, stranding of fat, comb-sign, separation of bowel loops and reactive lymph nodes. No fistula or abscess were visualised in these patients.

Conclusions: MR enterography is a promising ionizing sparing technique for the evaluation of small and large bowel disease extent in children with Crohn's disease.

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TREATMENT OF GASTRIC OUTLET OBSTRUCTION DUE TO PEPTIC ULCER IN FOUR CHILDREN

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Background: Peptic ulcer disease complicated with gastric outlet obstruction (GOO) is rare in children. The experience in management of such patients is limited. The purpose of this study is to review the etiology, clinical manifestations, treatment and outcome of the patients in two tertiary referral centers.

Material and methods: From 2005 to 2008, all the pediatric patients admitted to National Cheng Kung University Hospital and Kaohsiung Veterans General Hospital, Taiwan due to pyloric stenosis were reviewed. Infantile hypertrophic pyloric stenosis (IHPS) and anatomical anomalies, such as atresia, web were excluded. Four patients were enrolled into the study. The diagnosis of all the patients were confirmed by panendoscopy and barium meal study in all the patients.

Results: There were 3 boys and one girl. The mean age was 32 months (15-71 months). Two patients had ulcer over the pre-pyloric area and the other two had duodenal ulcer. The etiology of peptic ulcers included non-steroid anti-inflammation drugs (NASIDs) ingestion (2), Helicobacter pylori (1) and unknown (1). All patients manifested as