

**The aim** of this study was to reveal epidemiological and clinical data of the disease and discuss implemented modes of treatment.

**Methods** The medical records of children aged 0–5 years hospitalized with acute gastroenteritis in our facility between 1 January 2011 and 31 December 2011 were retrieved.

**Results** Of 1011 patients hospitalized in the study period, 116 were rotavirus positive (11.47%). Of all patients, 74.4% were boys and 82.75% up to one year old. The average age for patients was 16.38 months. Eutrophic were 61.12% patients, with first grade hypotrophy were 21.5% patients and with second grade hypotrophy 7.7% patients. All patients presented with diarrhea, 97.41% had vomiting and 43.96% fever at the admission. 70.7% of patients had moderate dehydration and 29.3% severe dehydration. Only somewhat less than one third of the patients in study were not treated with antibiotics (36.2%) and somewhat less than every fifteen was given blood and blood derivatives (6.9%). Every fifth patient in the study had associated disease. All patients were treated successfully.

**Conclusion** Rotavirus is responsible for significant portion of the acute diarrhea in Kosovo.

## 700 EASY DIAGNOSTIC METHOD FOR MACRO-AST

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**Introduction** Macro aspartate aminotransferase (macro-AST) has rarely reported as benign cause for increased plasma AST activities (ASAT). Highly specialized chromatography or electrophoresis were proposed for diagnosing macro-AST. We aimed to present a easy method for macro-AST.

**Case Report** We report here three cases of 18-month-old and 11-year-old two girls and 5-year-old boy with an isolated chronic asymptomatic elevation of the plasma ASAT. Our patients had no relevant past medical history and no family history of liver pathologies. They have high AST levels respectively 64 IU/L(0–40), 123 IU/L, 75 IU/L. They did not have hepatomegaly or splenomegaly. Several and regular controls of the liver function tests confirmed the asymptomatic isolated elevation of ASAT with values varying between 50 and 120 IU/L. The viral serologies for hepatitis were always unremarkable. ASMA, LKM, ceruloplasmine, anti-gliadin antibodies, TSH, FT4, alpha-1 antitripsin and abdominal sonographic imaging were normal. We took blood two tubes of 1 ml of blood samples from each patients and from 3 healthy controls. We studied AST levels of one tubes and other tubes were studied after 6 days of refrigerated storage (4° C). We reported 1–3% of loss of AST activity in our patients and 30–35% of loss of AST activity in control group (Table 1). As a result very low loss of AST activity of our patients supported that our patients have macro AST.

	18-month-old	Healthy control	11-year-old	Healthy control	5-year-old	Healthy control
First AST	120IU/L	31IU/L	89IU/L	23IU/L	78IU/L	34IU/L
Second AST	118IU/L	20IU/L	88IU/L	15IU/L	78IU/L	28IU/L

Abstract 700 Table 1

**Conclusion** Physicians should be aware of macro-AST as a cause of plasma AST activity elevations. Several laboratory techniques were proposed for diagnosing macro-AST. Some require highly specialized chromatography or electrophoresis. Other have more simple procedures based on immunoprecipitation of macroenzymes by polyethyleneglycol. There was a simple method as we reported in our three patients.

## 701 BURDEN OF ROTAVIRUS GASTROENTERITIS AMONG HOSPITALIZED INFANTS IN ROMANIA

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**Background and Aims** The rotavirus infection is a major cause of acute diarrhea in young children. The study aimed to evaluate the impact on healthcare and the economic burden associated with rotavirus gastroenteritis in infants, looking at incidence, disease severity and hospitalization costs.

**Methods** We conducted an observational, retrospective study which included children younger than one year, hospitalized with rotavirus gastroenteritis in the Department of Pediatrics in "Grigore Alexandrescu" Emergency Children's Hospital from January until June 2011. From the medical records we extracted: month of admission, age and sex, history of the disease, clinical characteristics, data on hospital course and costs of hospital stay. Vesikari severity score was calculated for each patient (score  $\geq 11$  = severe infection).

**Results** We selected 429 infants hospitalized with acute diarrhea from a total of 11383 patients admitted in our department. The study included 247 infants with rotavirus gastroenteritis (2.17% of all children hospitalized). The percentage of rotavirus diarrhea was 57.6%. The highest incidence of rotavirus infection was recorded in January (78%). Mean age was 7 months and 62.3% of infants had severe diarrhea. Mean severity score was 11.3. Nosocomial infection represented 25.5% of cases. The mean duration of hospitalization was 6.4 days; the average cost for hospitalization was 581.3 euros/patient.

**Conclusions** The rotavirus infection represented the etiology of acute diarrhea in more than half the cases. We report a high percentage of severe gastroenteritis and a significant percentage of nosocomial rotavirus diarrhea. The considerable medical costs should justify prevention through vaccination.

## 702 THE ROLE OF ROTAVIRUS IN ACUTE GASTROENTERITIS A STUDY IN THE ISLAMIC HOSPITAL/AMMAN/JORDAN

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### Objective

1. To study the microbial pattern of AGE in Jordan.
2. To emphasize the importance of Rota virus in the etiology of AGE.

**Methods** All cases of AGE admitted to our pediatric department/ Islamic hospital in 2008 were retrospectively reviewed for the results of stool tests, age, sex, duration of stay in hospital and the main symptoms.

**Results** A total of 1378 cases of AGE were admitted in 2008.

Confirmed diagnoses by stool testing in 570 cases (42%)

Stool tests were negative in 784 cases (58%)

Rotavirus cases = 485 (35%)

Adenovirus cases = 42 (5%)

Entameba histolytica cases = 35 (1.5%)

Bacterial (shigella sp., salmonella sp.) cases = 8 (0.5%)

Rotavirus was found in 85% of all stool +ve cases.

M/F = 1.15:1

Age: < 1year = 52%, 1–5years = 39%, > 5years = 9%

Mean hospital stay = 2.5 days.

Presentations: fever (70%), vomiting (85%), diarrhea (96%)

Mortality: zero%

**Conclusion** AGE is a major cause of hospital admissions in Jordan.

Rotavirus is the main cause of AGE accounting for about 35% of all causative agents.

About 90% of all cases of Rotavirus AGE occur in children under 5 years of age and

More than 50% of cases occur in infants.

Vaccination against rotavirus is now the best preventive measure.

### 703 CASE REPORT - A PATIENT WITH BONE FORMATION DEFECTS DURING PRENATAL LIFE DIAGNOSED AS 'SHWACHMAN-DIAMOND SYNDROME'

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**Case Report:** Shwachman-Diamond syndrome (SDS) is an autosomal recessive disorder with clinical features that include pancreatic exocrine insufficiency, hematological dysfunction and skeletal abnormalities during development after birth and varies with age. The patient was born as the first child to healthy, term. Labour was induced at 20 wk gestation because of symmetrical fetal growth retardation. Congenital infections were excluded. In the fetal karyotype analysis, no chromosomal abnormalities were detected. Molecular genetic analysis for achondroplasia and hypochondroplasia was performed and gave negative results. After birth, laboratory studies were normal. At the age of six months the patient's height, weight and head circumference remained below 3 percentile. During the sixth month of life, the child's blood count were evaluated retrospectively and intermittent neutropenia was documented. When she presented with increased fat loss and failure to thrive, fecal elastase level was < 50ug/g, low serum trypsinogen level was found. These results were primarily the signs of severe pancreatic insufficiency. On the CT scanning of pancreas, scattered fatty infiltration was detected. The X-ray imaging of the thorax showed narrow thorax. Although on spinal X-ray metaphyseal changes on the costochondral junctions was not detected; 'Metaphyseal dysostosis' of the femoral head and distal femur was observed more remarkable than upper limbs. When SBDS gene which is a causative gene for Scwachman-Diamond Syndrome was analyzed by DNA sequence analysis.

**Discussion** In contrast to the previous observations, results suggest that the characteristic skeletal changes present in some patients in the intrauterine period of life. Our observation underlines the necessity to consider SDS as the other common reasons of prenatally diagnosed bone disorders like achondroplasia and hypochondroplasia.

### 704 MALROTATION - NOT A LAUGHING MATTER

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**Background** Early diagnosis and management of intestinal malrotation can potentially prevent the devastating complications associated with midgut volvulus. Atypical presentation of intestinal malrotation in older children frequently leads to a significant delay in diagnosis.

**Methods** A 6-year-old boy presented with a five year history of hiccups, then vomiting after laughing. Sadly, he had resorted to avoiding laughter. Barium studies demonstrated intestinal malrotation, therefore a Ladd's procedure was performed and he made a good recovery. The case prompted a literature search for aetiology, diagnosis and management of malrotation in children outside of the neonatal period.

**Results** We present a review of this literature, including findings that diagnosis of intestinal malrotation in the older child is

frequently delayed. One study demonstrated a mean delay to diagnosis of 1.7 years. Vague abdominal symptoms including chronic abdominal pain, intermittent non-bilious vomiting, diarrhoea and failure to thrive have been associated with malrotation, but hiccups and laughter have not previously been described. Recent review of diagnostic imaging recommended ultrasound as the investigation of choice, and may advocate its use in the work up of children presenting with non-specific abdominal symptoms. Although debated in the literature, a Ladd's procedure is recommended for all children, even if asymptomatic.

**Conclusion** Children with intestinal malrotation present us with a diagnostic challenge, but a low threshold of suspicion in patients presenting with vague abdominal symptoms, including intractable hiccups or vomiting, may ensure these children receive the timely surgical intervention.

### 705 GASTROINTESTINAL HEMORRHAGE IN A 21-MONTH-OLD GIRL IN THE COURSE OF LYMPHONODULAR HYPERPLASIA. CASE REPORT

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Gastrointestinal hemorrhage is an emergency condition requiring immediate diagnostics. Lymphonodular hyperplasia, as a cause of bleeding from the gastrointestinal tract in children, is a rarely observed pathology of unknown etiology. The case of a 21-month-old girl is presented with massive bleeding from the lower gastrointestinal tract in the course of lymphonodular hyperplasia. Endoscopy of the upper and lower gastrointestinal tract was performed as an emergency procedure. Gastroscopic examination did not indicate any deviations from the normal. Colonoscopy showed no organic pathology of the mucosa in the terminal ileum, and the presence of blood in the small intestine was not observed. In the entire large intestine the presence of hemolyzed blood was noted and a massive lymphonodular hyperplasia on the mucosa. Histopathologic tests of the specimens taken from the large intestine confirmed normal pit patterns, mucosal edema, presence of lymph follicles, and numerous apoptotic bodies in the lamina propria beneath the epithelium and in the surface epithelium.

### 706 INTESTINAL EPITHELIAL DYSPLASIA - A CASE REPORT OF A Milder PHENOTYPE

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The intractable diarrhea of infancy remains a difficult challenge for the pediatrician.

We report a rare case of a five-month-old female infant admitted in "Grigore Alexandrescu" Emergency Children's Hospital, Bucharest for diarrheic stools and severe malnutrition with birth onset. She was exclusively breastfed with poor gain weight (360g in 5 months). During the 5 months of life the child was repeatedly admitted to other hospitals because of diarrhea and failure to thrive without a precise diagnosis. We mention that she had a sister who died at 3 months old because of severe diarrhea with birth onset. At admission the infant had severe malnutrition with watery diarrhea and facial dysmorphism. After extensive investigations we excluded infections and allergic causes, cystic fibrosis, immune and autoimmune enteropathy, motility disorders. We performed inferior and superior endoscopies with biopsies that excluded microvillus inclusion disease. Examination of the biopsy specimens (optic and electronic microscopy) revealed the diagnosis of intestinal epithelial