Conclusions We found some suggestion of a reduced risk of childhood asthma at age 7 with higher maternal plasma levels of omega-3 and a higher ratio of omega-3 to omega-6 PUFAs.

Methods 46 patients with clinically suspected AAp were enrolled in the prospective study (January 2010–December 2013). Each patient underwent abdominal US and was evaluated for the ASS criteria and for CRP. The ASS is based on three symptoms, three signs, and two laboratory findings. Sensitivity and specificity of the diagnostic tests were assessed. The study was approved by the Institutional Ethics Review Board.

Results 58.7% of our patients were boys, 41.3% - girls, the mean age was 12.91 years (SD 3.2). 47.8% had AAp and underwent appendectomy. The positive predictive value (PPV) for US was 95.5% and the negative predictive value (NPV) - 75%. The sensitivity for diagnosing AAp by US - 77.82%, the specificity - 94.7%, Anorexia and leukocytosis were significantly related to AAp (p < 0.01). The sensitivity was 41.0%, specificity 71.4%, PPV 94.1%, NPV 20.7% for the ASS with a cutoff point of 7. Of patients with AAp and with ASS score ≥7, two had a normal CRP; 12 patients with ASS scores < 7 had CRP ≥ 5 mg/L. The sensitivity was 75.0%, specificity 83.3%, PPV 75.0%, NPV 33.3%.

Conclusions ASS should be used in clinical practice for the patient’s benefit. US provides reliable findings for helping to diagnose AAp if ASS score ≥7 and CRP value is normal.

General Paediatric Surgery

Diagnostic Values of Alvarado Scoring System, Ultrasound and C-Reactive Protein in Paediatric Acute Appendicitis

A Čudeņa, A Engelis, A Petersens. Pediatric Surgery, University Children’s Hospital Riga Stradiņš University, Riga, Latvia

Background and aim Ultrasound (US) and Alvarado scoring system (ASS) are very helpful in making the diagnosis of Acute appendicitis (AAp). Therefore important evaluate the usefulness of ASS, US and C-reactive protein (CRP) in AAp diagnostics for children (7–18 years).

Methods 46 patients with clinically suspected AAp were enrolled in the prospective study (January 2010–December 2013). Each patient underwent abdominal US and was evaluated for the ASS criteria and for CRP. The ASS is based on three symptoms, three signs, and two laboratory findings. Sensitivity and specificity of the diagnostic tests were assessed. The study was approved by the Institutional Ethics Review Board.

Results 58.7% of our patients were boys, 41.3% - girls, the mean age was 12.91 years (SD 3.2). 47.8% had AAp and underwent appendectomy. The positive predictive value (PPV) for US was 95.5% and the negative predictive value (NPV) - 75%. The sensitivity for diagnosing AAp by US - 77.82%, the specificity - 94.7%, Anorexia and leukocytosis were significantly related to AAp (p < 0.01). The sensitivity was 41.0%, specificity 71.4%, PPV 94.1%, NPV 20.7% for the ASS with a cutoff point of 7. Of patients with AAp and with ASS score ≥7, two had a normal CRP; 12 patients with ASS scores < 7 had CRP ≥ 5 mg/L. The sensitivity was 75.0%, specificity 83.3%, PPV 75.0%, NPV 33.3%.

Conclusions ASS should be used in clinical practice for the patient’s benefit. US provides reliable findings for helping to diagnose AAp if ASS score ≥7 and CRP value is normal.