FOREIGN BODY INGESTION IN CHILDREN – FIVE YEARS OF EXPERIENCE AFTER THE ADOPTION OF GUIDELINES

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Objective Reevaluation of our experiences in adherence to the established local guidelines in our population of pediatric patients diagnosed with foreign body ingestion.

Methods A retrospective study of patients aged 0-18 years who were admitted to pediatric emergency department of the University Hospital Centre Zagreb between 1.1.2015. and 31.12.2019. due to suspected foreign body ingestion. We grouped them according to their age and localization of the foreign body along the digestive tract. We analyzed how many patients and with what success underwent endoscopy in relation to the applicable guidelines in our Institution.

Results Of the 410 patients with suspected foreign body ingestion, a foreign body was found in 175 patients (x = 4 years ± 9 months), more common in male children (100/175). Most of them (78/175, 45%) were in the age group 3-7 years, followed by 1-3 year group (51/175, 29%). Foreign body was localized radiologically in 165 (94%), by endoscopy in 8 (5%) patients, while in the two patients localization hasn’t been determined, and there was also one spontaneous foreign body expulsion. Most common foreign bodies were coins in 61 children (35%), followed by another metal object in 51 (29%), button battery in 35 (20%) and plastic object in 7 (4%) patients. In 11 children (6%) it was food bolus impaction, and 10 of them swallowed other objects. Most foreign bodies were localized in the stomach (95 patients, 54%), followed by the small intestine (38 patients, 22%), the esophagus (27 patients, 15%) and the colon (9 patients, 5%). Two toothpicks were found in piriform sinus and tonsils. Endoscopy was performed in a third of patients (59/175; 34%), and it was successful (resulting in foreign body extraction) in 48 of them (81%). In 25/27 of patients with foreign body localized in the esophagus endoscopy was performed, while the two asymptomatic patients were observed. 7/8 patients with food bolus impaction were previously diagnosed with esophageal stenosis. According to guidelines, 41 endoscopies (70%) were warranted and 18 (30%) were not. We compared our results from this period (III) with the two previous ones: before the adoption of guidelines (I) and the early period following the introduction of guidelines (II). The following was shown: endoscopy in 67% of patients with foreign body ingestion with 77% success rate (I), endoscopy in 20% of patients with 90% success rate, and in 34% of patients with 81% success rate (III).

Conclusion Global experiences suggest that endoscopic extraction is indicated in 10-20% of cases of all foreign body ingestions in children. In the study period, in one third of 34% of patients in which the endoscopy was performed, it was not indicated according to current guidelines. Despite the existence of guidelines, tenacity and the vigilance of adherence to them decreases over time. Their existence by itself is not sufficient in reducing children’s exposure to unnecessary and potentially harmful interventions.