



## High-Tech diagnostic methods and enteroscopic treatment of children with Peutz-Jeghers Syndrome

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### ABSTRACT

**Introduction.** Peutz-Jeghers syndrome (PJS) is an autosomal dominant hereditary hamartomatous polyposis with predominant localization in the jejunum and ileum and high risk of bowel perforation after traditional polypectomy. The modern enteroscopy is the only possible technique for visualizing and performing intraluminal endoscopic microsurgical manipulations in the deep sections of the small intestine.

**Aim.** Develop an optimal method for the diagnosis and treatment of polyps in children with Peutz-Jeghers syndrome (PJS).

**Materials and methods.** During 2015–2018 we conducted 30 comprehensive examinations of children (18 boys and 12 girls aged 10 to 17 years) with PJS in the department of endoscopic and morphological research of the XXX organization. We performed esophagogastroduodenoscopy and colonoscopy with removal of polyps more than 7 mm, then video capsule endoscopy - polyps with a diameter of 2 mm to 2.5 cm were detected in the deep sections of the small intestine. Guided by this, we made a decision to conduct therapeutic single-balloon enteroscopy. Our technique for removal of polyps is general in all parts: 1. submucosal injection of hyaluronic acid next to the polyp (creating a “resistant pillow”); 2. electroexcision of polyp; 3. clipping the removal site after polypectomy.

**Results.** Successfully performed electroexcision of polyps, which were localized in the deep parts of the small intestine at a distance of 30 segments (1 segment is 10 cm), reached a diameter of 2.5 cm, had a long pedicle. The postoperative period was uneventful.

**Conclusions.** We have developed an optimal method of diagnostic and therapeutic measures, the observance of which allows us to avoid delayed perforations of the small intestine in the area of polypectomy in the postoperative period in children with PJS. Thanks to this technique, modern enteroscopy is becoming the only possible alternative to bowel resection in children with PJS.

### BIOGRAPHY

Evgeniya Kirakosyan, 6th year undergraduate student in International School “Medicine of the Future”, I.M. Sechenov First Moscow State Medical University (Sechenov University). She is the winner of a significant number of student Olympiads and conferences.

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