

## LAPAROSCOPIC – ENDOSCOPIC COOPERATIVE SURGERY (LECS) METHODS IN PEUTZ -JEGHERS SYNDROME (PJS) TREATMENT.

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Next year will be 130 years since dr. Connor described twin sisters with dark spots on their lips and oral mucosa, and after 26 years dr. Johannes Laurentius Augustinus Peutz wrote about 15 years old teenager in Hague hospital who was seen by him for anorexia, nausea, abdominal pain and weight loss. After two largest publications in New England Journal of Medicine about 10 patients as "Syndrome de Peutz" by Harold Jegher with dr. Victor McKusick only during last 30 years it became clear by genetics researchers – mutation of the STK11 gene could be responsible for PJS. Complications of which were benign polyps are very higher – 69-93 %. Frequent complications in patients with PJS include bleeding, obstruction and intussusceptions – mostly for patients between the ages of 10 to 30 years.



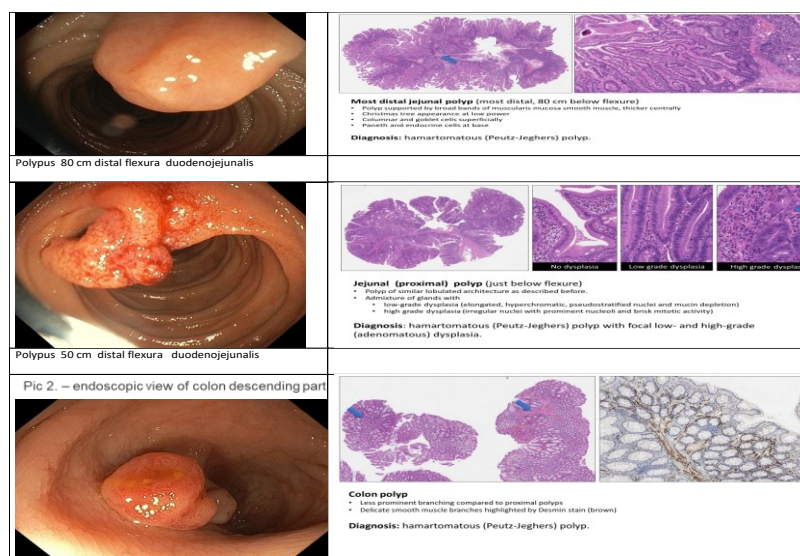
Pict 1.



Pict. 2.

Pict. 1 – endoscopic view of duodenal polyp (From biopsy of this polyp we take first attention on PJS)

Pict. 2 – endoscopic view of colon polyp in descending part, which histology confirm our attention to PJS.



In Lithuania at this moment, we not have statistic data with this pathology – we can only predict that should be only about 15-20 such patients, and only every year one child with PJS is born.

We had a more complicated situation – polyps were from duodenum to rectum. The 22 years old woman is famous for us past 30 months. She was operated on at the age of nine in one of our university hospitals due to grueling intense abdominal pains. In last two years she was operated three times with different minimal invasive techniques:

**\*1 QR – is laparoscopic assistance using colonoscope we remove endoscopically four hamartomatous polyps from upper part of digestive tract (duodenum & proximal part of small bowel!);**

**\*by colonoscope we remove one hamartomatous polyp from colon and examine 80 cm (till the marked point) of small bowel;**

**\*after 18 months after X-ray examination (2 QR) during capsule endoscopy (3 QR) and CT-scan enterography (4 QR) was found one polyp in the middle of small bowel – it was successfully removed during laparoscopic procedure.**

We often use laparoscopy for patients with large risk perforation.

### CONCLUSIONS:

\*Identification and follow-up of these patients can decrease morbidity and expenses to the health system.

\*\*Our case may start and help in the management of this rare disorder and establishment of related surveillance project in future.

\*\*\*Recommendations for cancer surveillance in PJS might be modeled after guidelines developed for disorders with similar cancer risks.

\*\*\*\*Future studies on prolonged registry data are needed to confirm the risk estimates cited in the present study. In addition, formal evaluation will be necessary to assess the impact of surveillance regimens on morbidity and mortality in patients with PJS.

1QR



2QR



3QR



4QR



5 QR



Laparoscopic and endoscopic cooperative surgery (LECS) is a newly developed concept for tumor dissection of the gastrointestinal tract which was first investigated for the local resection of gastric gastrointestinal stromal tumors (GISTs). Approaches are grouped into three major categories:

\*Laparoscopy-assisted endoscopic resection (LAER) in which resection is performed primarily by the endoscopic team under laparoscopic control;

\*\*Endoscope-assisted laparoscopic resection (EALR), where the laparoscopic teams perform the resection under endoscopic monitoring;

\*\*\*Combined laparoscopic endoscopic resection (CLER) which is performed by the laparoscopic and the endoscopic teams.