

COMMENTARY TO HABILITATION THESIS¹

[Background: Crohn's disease (CD) is a chronic inflammatory bowel disease. Currently, we face a growing incidence of CD, mainly in developed countries. It is necessary, then, to find new and modern treatments (both conservative and surgical).

Methods: This habilitation thesis is a set of annotated works (a total of 23 scientific articles and 3 abstracts from international congresses). The articles were published between 2016 and 2020 and are supplemented and interconnected by an accompanying text with links to the latest literature.

Results: In IBD surgery, a mini-invasive approach is preferred. Surgically induced remission in patients with CD increases quality of life. The combination of oral ATB prophylaxis with preoperative orthograde bowel preparation appears to be an appropriate preoperative preparation before intestinal resection in patients with CD, to achieve minimal postoperative morbidity. Two or more mutations in the NOD2 gene are associated with a more aggressive type of CD, and these patients also require more frequent resection of the ileum than other CD patients. Early laparoscopic ileocecal resection in inflammatory disease behaviour is currently considered an alternative to Infliximab treatment. Positive microscopic inflammatory activity of CD in the resection margins in cases of ileocecal resection affects the early recurrence of the disease in the anastomosis. Perioperative use of confocal laser endomicroscopy (CLE) could be helpful in determining the resection line and reduce early recurrence of CD in the anastomosis. However, further studies with CLE in larger patient populations are needed.

Conclusion: A positive microscopic resection margin in ileocecal resection is a risk factor for early endoscopic recurrence, and CLE could be useful in the future to perioperatively determine the resection line and reduce CD recurrence.]

¹ The commentary must correspond to standard expectations in the field and must include a brief characteristic of the investigated matter, objectives of the work, employed methodologies, obtained results and, in case of co-authored works, a passage characterising the applicant's contribution in terms of both quality and content.

[1]² JABANDZIEV, Petr, Tereza PINKASOVA, Lumir KUNOVSKY, Jan PAPEZ, Martin JOUZA, Bara KARLINOVA, Martina NOVACKOVA, Milan URIK, Stefania AULICKA, Ondrej SLABY, Julia BOHOSOVA, Katerina BAJEROVA, Milan BAJER a Ajay GOEL. Regional Incidence of Inflammatory Bowel Disease in a Czech Pediatric Population: 16 Years of Experience (2002-2017). *Journal of Pediatric Gastroenterology and Nutrition* [online]. 2020, **70**(5), 586–592. ISSN 0277-2116. Dostupné z: doi:[10.1097/MPG.0000000000002660](https://doi.org/10.1097/MPG.0000000000002660)

Document Type: **Article**; (v roce 2019 IF = 2,937; Category JCR: **GASTROENTEROLOGY AND HEPATOLOGY Q3**)

Experimental work (%)	Supervision (%)	Manuscript (%)	Research direction (%)
5	5	10	5

[2] JABANDZIEV, Petr, Julia BOHOSOVA, Tereza PINKASOVA, Lumir KUNOVSKY, Ondrej SLABY a Ajay GOEL. The Emerging Role of Noncoding RNAs in Pediatric Inflammatory Bowel Disease. *Inflammatory Bowel Diseases* [online]. 2020, **26**(7), 985–993. ISSN 1078-0998. Dostupné z: doi:[10.1093/ibd/izaa009](https://doi.org/10.1093/ibd/izaa009)

Document Type: **Article**; (v roce 2019 IF = 4,261; Category JCR: **GASTROENTEROLOGY AND HEPATOLOGY Q2**)

Experimental work (%)	Supervision (%)	Manuscript (%)	Research direction (%)
5	5	15	10

[3] PACKOVÁ, B., L. KUNOVSKÝ*(*corresponding author*)*, M. EID, R. KROUPA, M. DASTYCH, M. ŠENKYŘÍK, T. GROUCH, J. HUSTÝ, P. JABANDZIEV, V. KUBEŠ, P. PROCHÁZKA a J. DOLINA. Small bowel adenocarcinoma diagnosed by capsule endoscopy in a patient with celiac disease: a case report and review of literature. *Vnitřní lékařství*. 2020, **66**(07), 39-42.

Experimental work (%)	Supervision (%)	Manuscript (%)	Research direction (%)
10	50	30	30

[4] KUNOVSKÝ, L., M. DASTYCH, O. ROBEK, R. SVATON, J. VLAZNY, J. HUSTÝ, M. EID, K. POREDSKA, P. KYSELA a Z. KALA. Mnohočetné postižení tenkého střeva neuroendokrinním tumorem: kazuistika a přehled literatury. *Vnitřní lékařství*. 2018, **64**(10), 966–969.

Document Type: **Article**

Experimental work (%)	Supervision (%)	Manuscript (%)	Research direction (%)

² Bibliographic record of a published scientific result, which is part of the habilitation thesis.

10	60	50	30
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[5] **KUNOVSKY, L. *(corresponding author)***, M. DASTYCH, R. KROUPA, B. HEMMELOVA, K. MUCKOVA, M. CHOVANCOVA, L. KUCEROVA a J. DOLINA. Gastric antral vascular ectasia and solitary rectal ulcer syndrome - Two rare diagnoses as the cause of anemia in a single patient: Case report. *Vnitřní Lekarství*. 2017, **63**(5), 339–342.

Document Type: Article

Experimental work (%)	Supervision (%)	Manuscript (%)	Research direction (%)
5	60	50	30

[6] KUCEROVA, Lenka, Jiri DOLINA, Milan DASTYCH, Daniel BARTUSEK, Tomas HONZIK, Jan MAZANEC a **Lumir KUNOVSKY*(corresponding author)***. Mitochondrial Neurogastrointestinal Encephalomyopathy Imitating Crohn's Disease: A Rare Cause of Malnutrition. *Journal of Gastrointestinal and Liver Diseases* [online]. 2018, **27**(3), 321–325. ISSN 1841-8724. Dostupné z: doi:[10.15403/jgld.2014.1121.273.kuc](https://doi.org/10.15403/jgld.2014.1121.273.kuc)

Document Type: Article; (IF = 2,063; Category JCR: GASTROENTEROLOGY AND HEPATOLOGY Q4)

Experimental work (%)	Supervision (%)	Manuscript (%)	Research direction (%)
10	35	35	30

[7] Bartušek D, Válek V, Kala Z, Procházka V, Andrašina T, Janeček P, **Kunovsky L (corresponding author)**. Zobrazovací metody u neúrazových náhlých příhod břišních. *Gastroenterol Hepatol* 2020; 74(6).

Experimental work (%)	Supervision (%)	Manuscript (%)	Research direction (%)
5	50	40	20

[8] **KUNOVSKY, L. *(corresponding author)***, Z. KALA, L. MITAS, V. CAN, J. DOLINA, E. NEMCOVÁ, L. KLVACOVA, T. GAJDOSOVA a I. PENKA. Vzácné případy napodobující akutní apendicitidu: tři kazuistiky a přehled literatury. *Rozhledy v chirurgii : mesicnik Ceskoslovenske chirurgicke spolecnosti*. 2017, **96**(2), 82–87.

Document Type: Article

Experimental work (%)	Supervision (%)	Manuscript (%)	Research direction (%)
10	50	50	15

[9] **KUNOVSKY, Lumir*(corresponding author)***, Beata HEMMELOVA, Zdenek KALA, Jiri DOLINA, Stefan KONECNY a Igor PENKA. Crohn disease and pregnancy: a case report of an acute abdomen. *International Journal of Colorectal Disease* [online]. 2016, **31**(8), 1493–1494. ISSN 0179-1958. Dostupné z: doi:[10.1007/s00384-016-2554-1](https://doi.org/10.1007/s00384-016-2554-1)

Document Type: **Letter; (IF = 2,641; Category JCR: SURGERY Q2)**

Experimental work (%)	Supervision (%)	Manuscript (%)	Research direction (%)
10	50	60	20

[10] MAREK, F., **L. KUNOVSKY*(corresponding author)***, T. GROlich, B. HEMMELOVÁ, K. POREDSKÁ, D. BARTUŠEK a Z. KALA. Náhlé příhody břišní u pacientů s Crohnovou chorobou kazuistiky. *Rozhledy v chirurgii: mesicnik Ceskoslovenske chirurgicke spolecnosti*. 2019, **98**(1), 31–34.

Document Type: **Article**

Experimental work (%)	Supervision (%)	Manuscript (%)	Research direction (%)
5	50	30	15

[11] BLAHO, M., P. DÍTĚ, **L. KUNOVSKÝ** a B. KIANIČKA. Autoimmune pancreatitis – An ongoing challenge. *Advances in Medical Sciences* [online]. 2020, **65**(2), 403–408. Dostupné z: doi:[10.1016/j.advms.2020.07.002](https://doi.org/10.1016/j.advms.2020.07.002)

Document Type: **Review; (v roce 2019 IF = 2,570; Category JCR: MEDICINE, RESEARCH AND EXPERIMENTAL Q3)**

Experimental work (%)	Supervision (%)	Manuscript (%)	Research direction (%)
10	15	15	10

[12] KUPKA, T., I. NOVOTNÝ, **L. KUNOVSKÝ**, M. UVÍROVÁ, M. BLAHO, J. DVOŘÁČKOVÁ a P. DÍTĚ. Idiopathic inflammatory bowel disease and the first type of autoimmune form of pancreatitis: Case report. *Vnitřní Lekarství*. 2019, **65**(7–8), 520–523.

Document Type: **Article**

Experimental work (%)	Supervision (%)	Manuscript (%)	Research direction (%)
5	15	15	10

[13] CAN, V., F. MAREK, Z. KALA, K. POREDSKA, R. KROUPA, E. TVRDIKOVA, T. ANDRASINA, V. PROCHAZKA a **L. KUNOVSKY*(corresponding author)***. Ileocaecal Crohn's disease and familial adenomatous polyposis in one patient – A case report. *Gastroenterologie a Hepatologie* [online]. 2019, **73**(1), 46–51. Dostupné z: doi:[10.14735/amgh201946](https://doi.org/10.14735/amgh201946)

Document Type: **Article**

Experimental work (%)	Supervision (%)	Manuscript (%)	Research direction (%)
10	50	30	15

[14] POREDSKÁ, K., V. ZBOŘIL, L. PROKOPOVÁ, L. KUČEROVÁ, M. DASTYCH, S. RICHTER, P. PRAKSOVÁ, J. DOLINA a **L. KUNOVSKÝ*(corresponding author)***. Spinal epidural abscess – a rare complication of Crohn’s disease: Case report. *Vnitřní Lekarství*. 2019, **65**(11), 712–714.

Document Type: Article

Experimental work (%)	Supervision (%)	Manuscript (%)	Research direction (%)
5	35	25	15

[15] **KUNOVSKÝ, L.*(corresponding author)***, F. MAREK, Z. KALA, J. DOLINA, P. MORAVČÍK, V. ČAN a V. PROCHÁZKA. Possibilities of minimally invasive surgery in patients with Crohn’s disease and ulcerative colitis. *Gastroenterologie a Hepatologie* [online]. 2017, **71**(1), 29–35. Dostupné z: doi:[10.14735/amgh201729](https://doi.org/10.14735/amgh201729)

Document Type: Review

Experimental work (%)	Supervision (%)	Manuscript (%)	Research direction (%)
15	50	60	15

[16] **KUNOVSKÝ, L.**, Z. KALA, V. PROCHÁZKA, M. DASTYCH, I. NOVOTNÝ, J. TRNA, J. MAZANEC, T. ANDRAŠINA, M. EID, M. POTRUSIL a P. MORAVČÍK. Laparoscopic pancreaticoduodenectomy for ampullary adenocarcinoma - A case report. *Gastroenterologie a Hepatologie* [online]. 2018, **72**(5), 401–407. Dostupné z: doi:[10.14735/amgh2018401](https://doi.org/10.14735/amgh2018401)

Document Type: Article

Experimental work (%)	Supervision (%)	Manuscript (%)	Research direction (%)
10	50	60	15

[17] FARKASOVA, M., **L. KUNOVSKY*(corresponding author)***, V. PROCHAZKA, P. HUSA Jr., J. BLAZEK, K. POREDSKA, J. MAZANEC, A. VOJVODOVA, T. ANDRASINA a Z. KALA. Laparoscopic liver resection for alveolar echinococcosis. *Gastroenterologie a Hepatologie* [online]. 2019, **73**(2), 126–131. Dostupné z: doi:[10.14735/amgh2019126](https://doi.org/10.14735/amgh2019126)

Document Type: Article

Experimental work (%)	Supervision (%)	Manuscript (%)	Research direction (%)

5	50	35	10
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[18] POREDSKA, Karolina, **Lumír KUNOVSKÝ*(corresponding author)***, Filip MAREK, Zdenek KALA, Vladimír PROCHÁZKA, Jiri DOLINA, Vladimír ZBORIL, Petra KOVALCIKOVA, Tomas PAVLIK, Petr JABANDZIEV, Zdenek PAVLOVSKY, Jakub VLAZNY a Ladislav MITAS. The Influence of Microscopic Inflammation at Resection Margins on Early Postoperative Endoscopic Recurrence After Ileocaecal Resection for Crohn's Disease. *Journal of Crohns & Colitis* [online]. 2020, **14**(3), 361–368. ISSN 1873-9946. Dostupné z: doi:[10.1093/ecco-icc/ijz153](https://doi.org/10.1093/ecco-icc/ijz153)

Document Type: **Article**; (v roce 2019 IF = 8,658; Category JCR: **GASTROENTEROLOGY AND HEPATOLOGY Q1**)

Experimental work (%)	Supervision (%)	Manuscript (%)	Research direction (%)
20	50	50	40

[19] **KUNOVSKÝ, Lumír**, Karolina POREDSKÁ, Filip MAREK, Zdeněk KALA, Vladimír PROCHÁZKA, Jiří DOLINA, Vladimír ZBOŘIL, Radek KROUPA, Jitka VACULOVÁ, Tomáš PAVLÍK, Jakub VLAŽNÝ, Petr JABANDŽIEV, Dominika IVANECKÁ a Ladislav MITÁŠ. Endoscopic recurrence after ileocaecal resection for Crohn's disease relating to microscopic inflammation at resection margins. In: *ESGE Days* [online]. 2020, s. s-0040-1704693. Dostupné z: doi:[10.1055/s-0040-1704693](https://doi.org/10.1055/s-0040-1704693)

Experimental work (%)	Supervision (%)	Manuscript (%)	Research direction (%)
20	50	50	40

[20] **KUNOVSKY, L.**, Z. KALA, F. MAREK, J. DOLINA, K. POREDSKA, L. KUCEROVA, K. BENESOVA a L. MITAS. The role of the NOD2/CARD15 gene in surgical treatment prediction in patients with Crohn's disease. *International Journal of Colorectal Disease* [online]. 2019, **34**(2), 347–351. ISSN 0179-1958. Dostupné z: doi:[10.1007/s00384-018-3122-7](https://doi.org/10.1007/s00384-018-3122-7)

Document Type: **Article**; (IF = 2,108; Category JCR: **SURGERY Q2**)

Experimental work (%)	Supervision (%)	Manuscript (%)	Research direction (%)
15	50	60	35

[21] IESALNIEKS, Igors, Filip MAREK, Zdeněk KALA a **Lumír KUNOVSKÝ**. Increased risk of anastomotic leak in Crohn's disease patients unable to complete preoperative mechanical bowel preparation. *Journal of Crohn's and Colitis* [online]. 2020, **14**(Supplement_1), S472–S472. ISSN 1873-9946, 1876-4479. Dostupné z: doi:[10.1093/ecco-icc/ijz203.685](https://doi.org/10.1093/ecco-icc/ijz203.685)

Experimental work (%)	Supervision (%)	Manuscript (%)	Research direction (%)

20	35	20	35
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[22] KUNOVSKY, L. *(corresponding author)*, Z. KALA, L. MITAS, J. DOLINA, V. CAN, L. KUCEROVA, V. JADCZAKOVA a I. PENKA. Quality of life after bowel resection for Crohn's disease - first results. *Rozhledy v chirurgii: mesicnik Ceskoslovenske chirurgicke spolecnosti*. 2016, **95**(12), 444–448.

Document Type: Article

Experimental work (%)	Supervision (%)	Manuscript (%)	Research direction (%)
25	50	50	25

[23] KUNOVSKY, L. *(corresponding author)*, L. MITAS, F. MAREK, J. DOLINA, K. POREDSKA, L. KUCEROVA, K. BENESOVA a Z. KALA. Impact of surgery on quality of life in Crohn's disease patients: Final results of Czech cohort. *Vnitřní Lekarství*. 2018, **64**(4), 347–354.

Document Type: Review

Experimental work (%)	Supervision (%)	Manuscript (%)	Research direction (%)
25	50	50	25

[24] MORAVČÍK, Petr, Jan HLAVSA, Zdeněk KALA, Igor PENKA, Martin POTRUSIL a Lumír KUNOVSKÝ. Intraoperative use of confocal laser microscope (CLM) in pancreas surgery. In: *EPC meeting - 2017*. Pancreatology 2017;17:S86.
<https://doi.org/10.1016/j.pan.2017.05.273>.

Experimental work (%)	Supervision (%)	Manuscript (%)	Research direction (%)
25	15	15	25

[25] MORAVČÍK, P., J. HLAVSA, L. KUNOVSKÝ*(corresponding author)*, Z. KALA, I. PENKA a M. DASTYCH. Confocal laser endomicroscopy in the diagnostics of malignancy of the gastrointestinal tract. *Klinická Onkologie* [online]. 2017, **30**(4), 258–263. Dostupné z: doi:[10.14735/amko2017258](https://doi.org/10.14735/amko2017258)

Document Type: Article

Experimental work (%)	Supervision (%)	Manuscript (%)	Research direction (%)
20	40	30	30

[26] KUNOVSKÝ, L. *(corresponding author)*, Z. KALA, R. KROUPA, T. GROLIČH, J. DOLINA, M. DASTYCH, J. VACULOVÁ, J. VLAŽNÝ, P. MORAVČÍK, L.I. HOLLÁ, P.B. LINHARTOVÁ, P. JABANDŽIEV a V. PROCHAZKA. Konfokální

laserová endomikroskopie v diagnostice onemocnění jícnu: pilotní studie. *Vnitřní lékařství*. 2020, **66**(5), e26-e32.

Document Type: Article

Experimental work (%)	Supervision (%)	Manuscript (%)	Research direction (%)
40	50	50	45