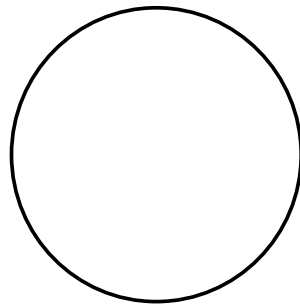


Léčba perforace duodena u akutní  
pankreatitidy  
aneb  
v jednoduchosti je krása...



Jan Maňák

FN Hradec Králové

# Anamnéza

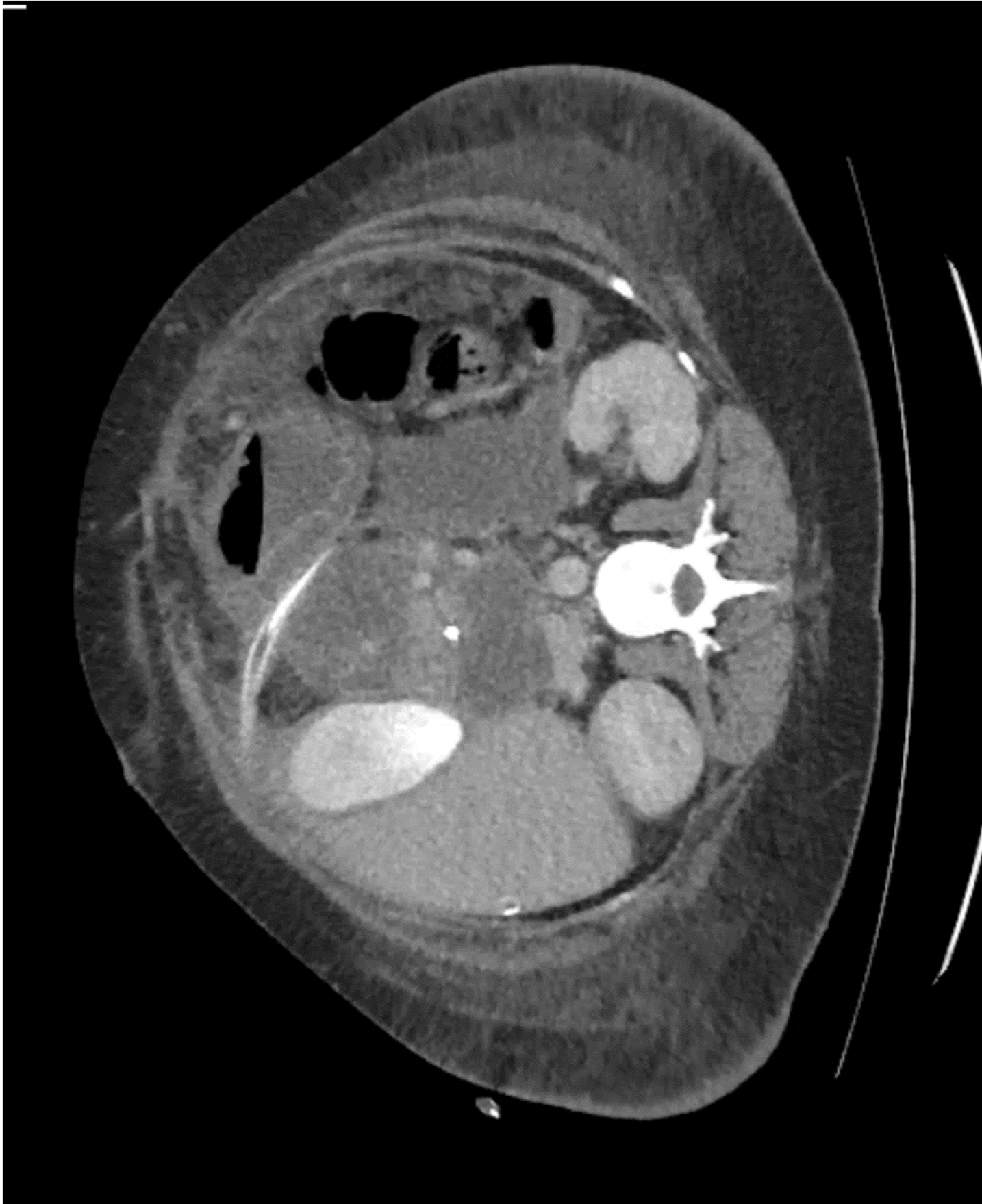
- Žena nar. 1988
- OA:
  - appendektomie před lety
  - Sectio Caesarea 2x
- FA: bez léčby
- PSA: Ukrajinka, ubytovna, 3 děti

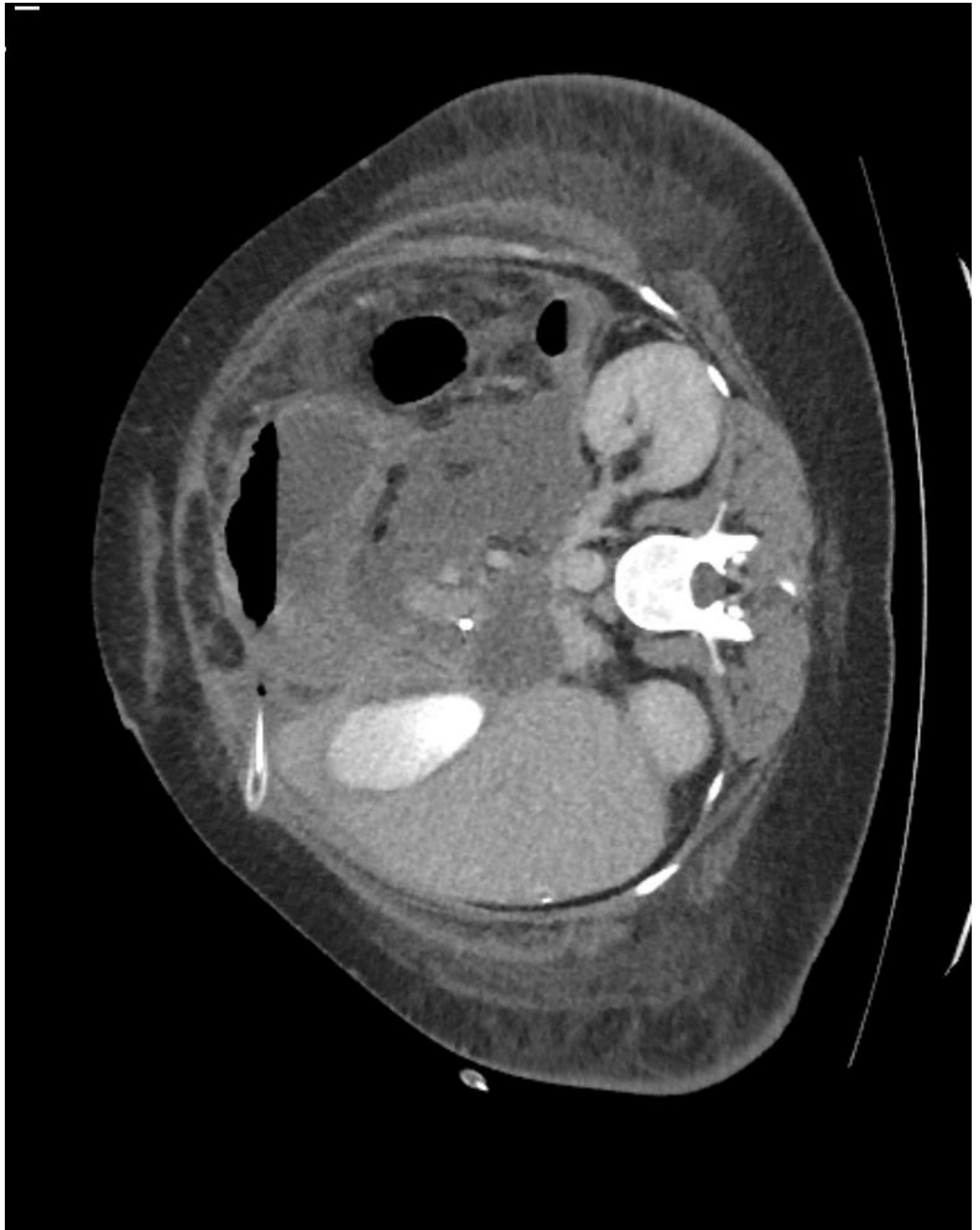
# Nynější onemocnění

- 5.9.2022 přijata na chir. pro akutní bil. pankreatitis
- 6.9.2022 chir. revize
  - evakuace nekróz
- 15.9. ERCP
  - pokus o stentáž -> chir. revize – perforace GIT?
  - nenalezena
- 27.9.2022 ERCP
  - nález perforace nekros do duodena
  - double pigtail z duodena do kolekce
- 4.10.2022 překlád do FNHK

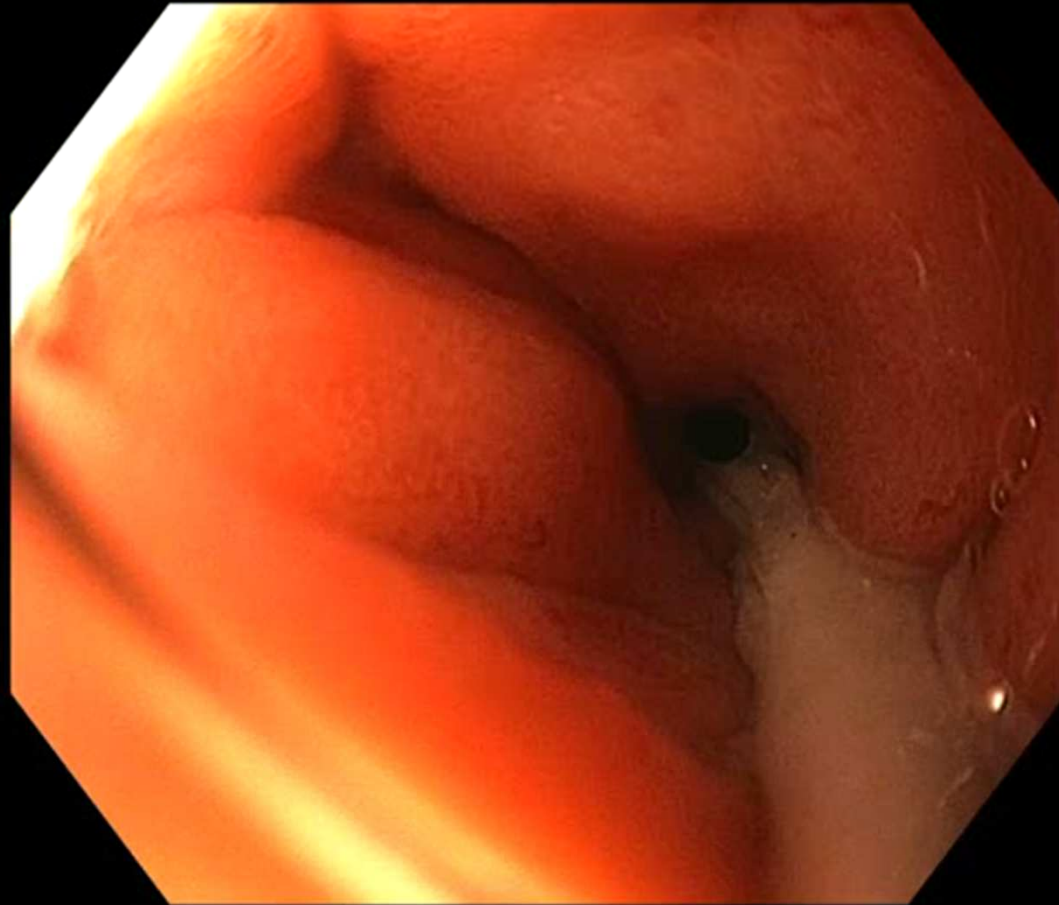
# FN Hradec Králové

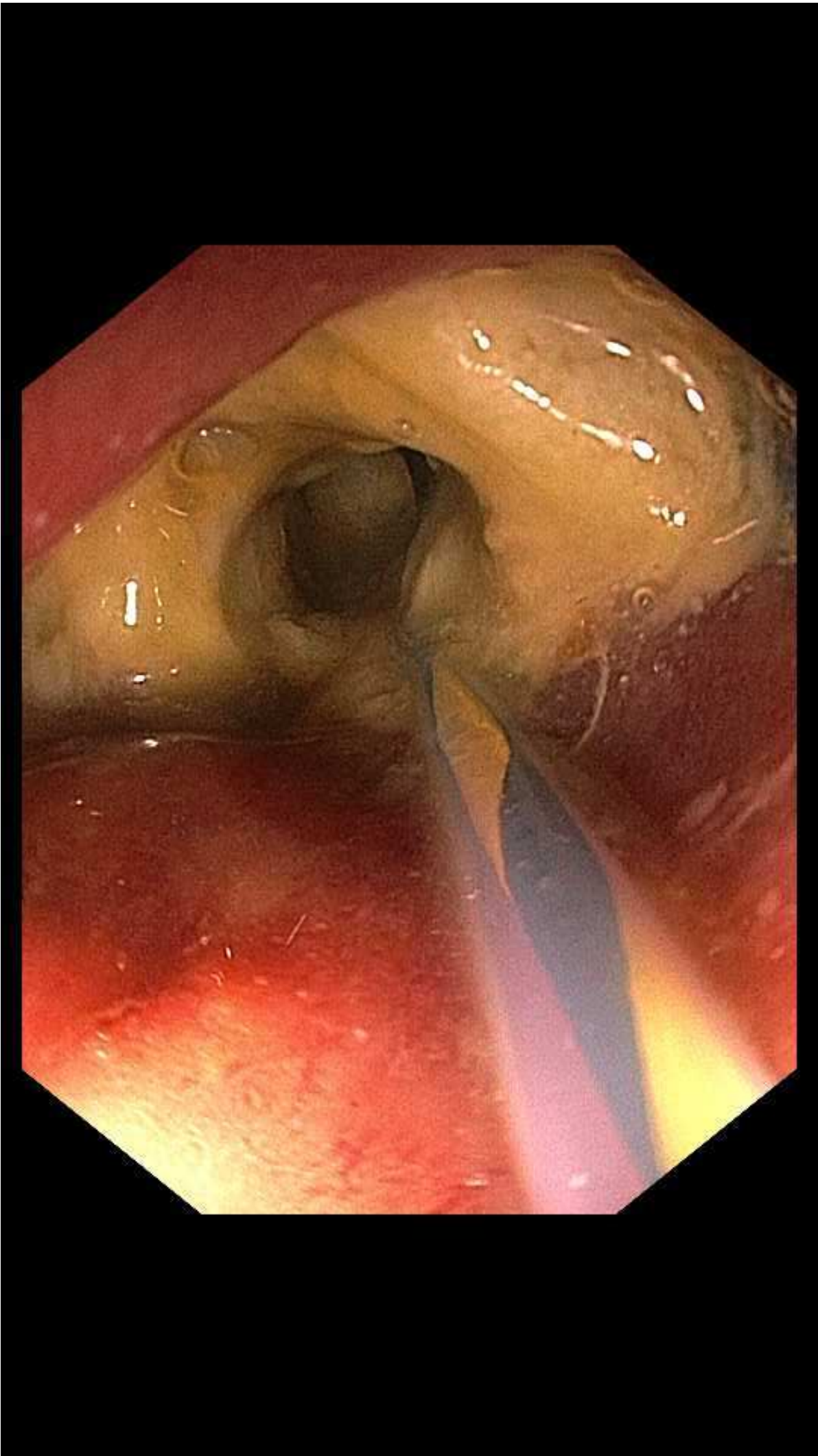
- Tlumena, řízeně ventilována přes tracheostomii
- Subkostální řez
  - drény vlevo s produkcí hnisu
  - indurovaná, rozpuštěná operační rána, hnis
  - drény vpravo – střevní obsah
- Sepse, pomalý kapilární návrat, Tigecyklin





# Gastroduodenoskopie



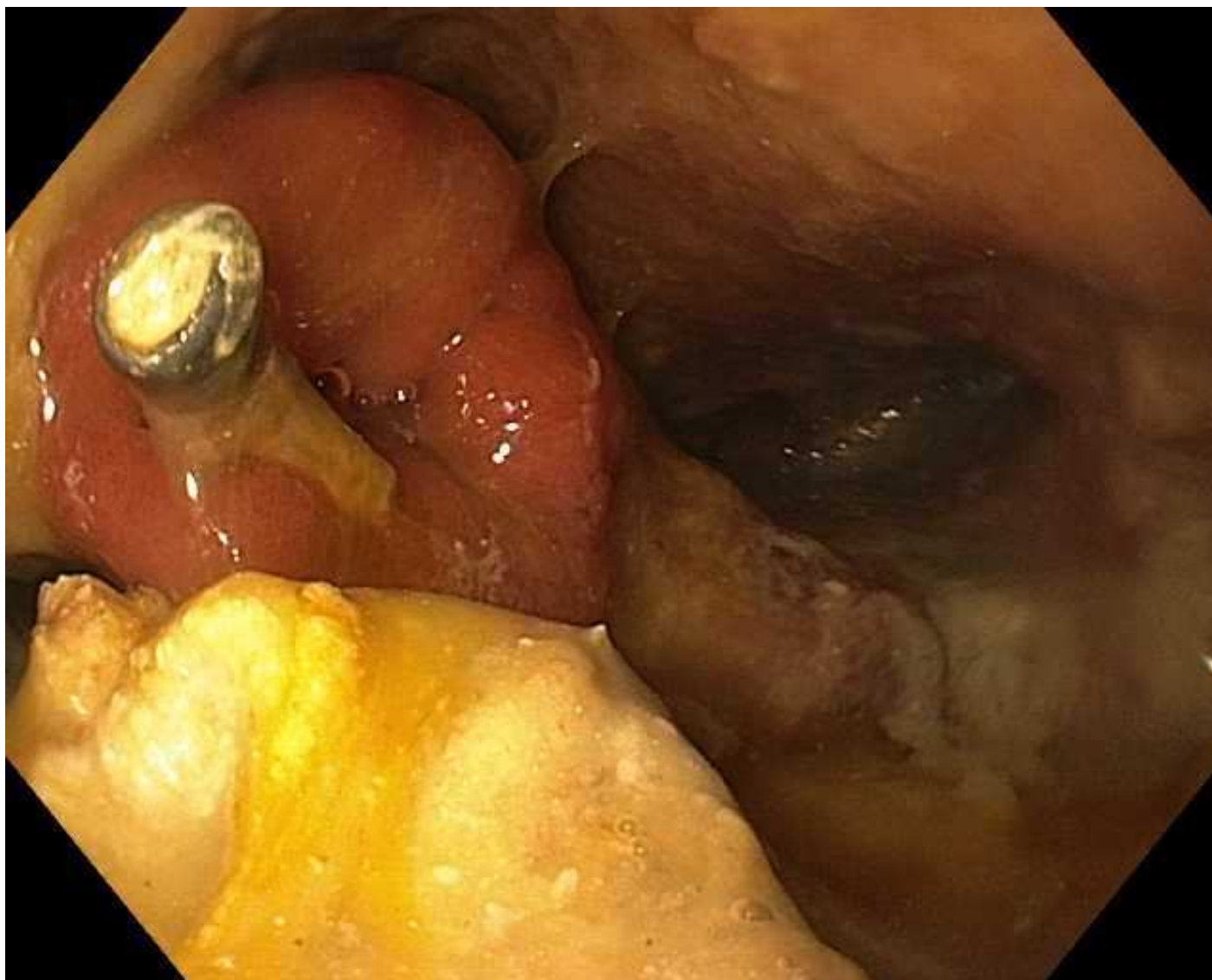




# Perkutánní endoskopie



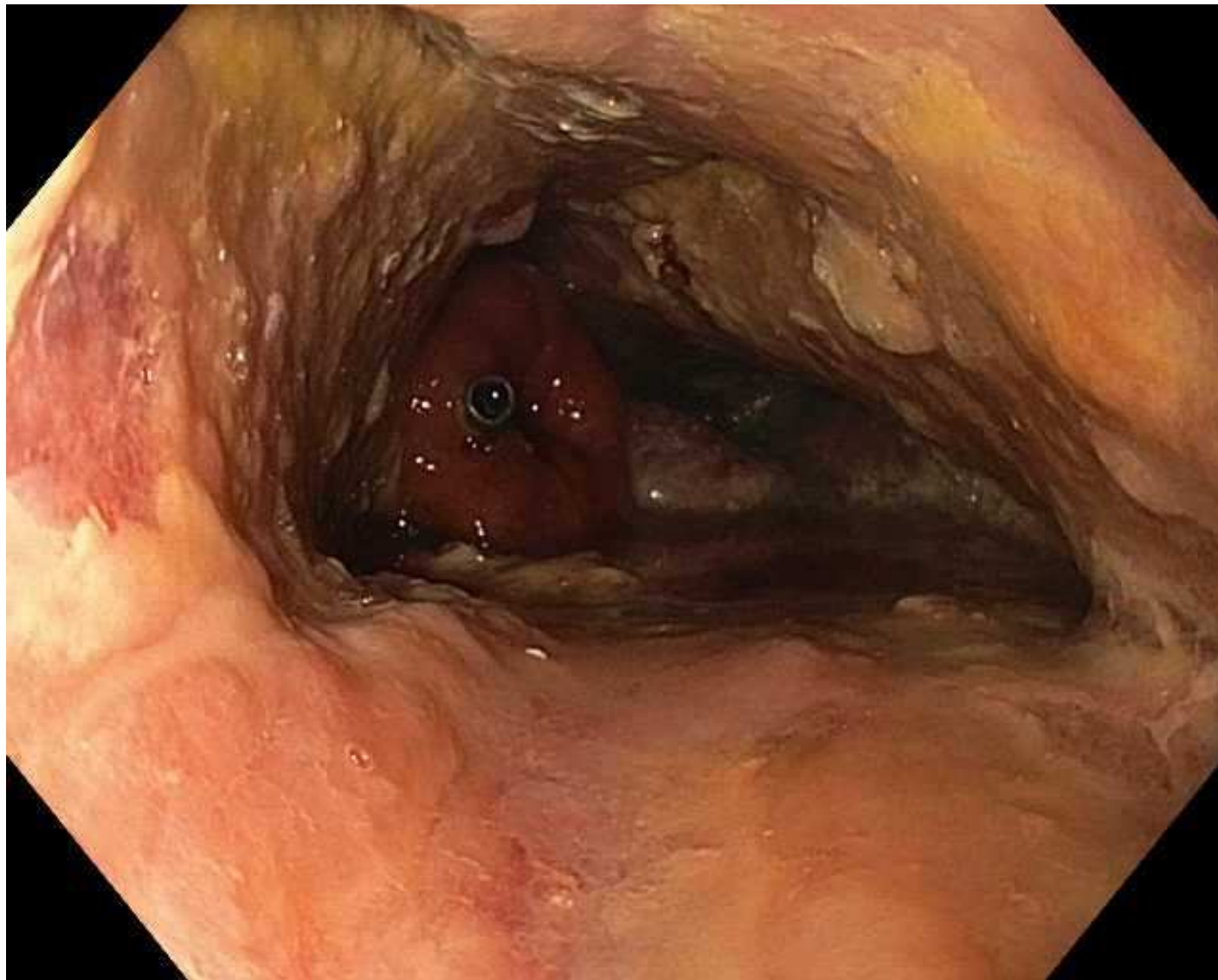
# Perkutánní endoskopie



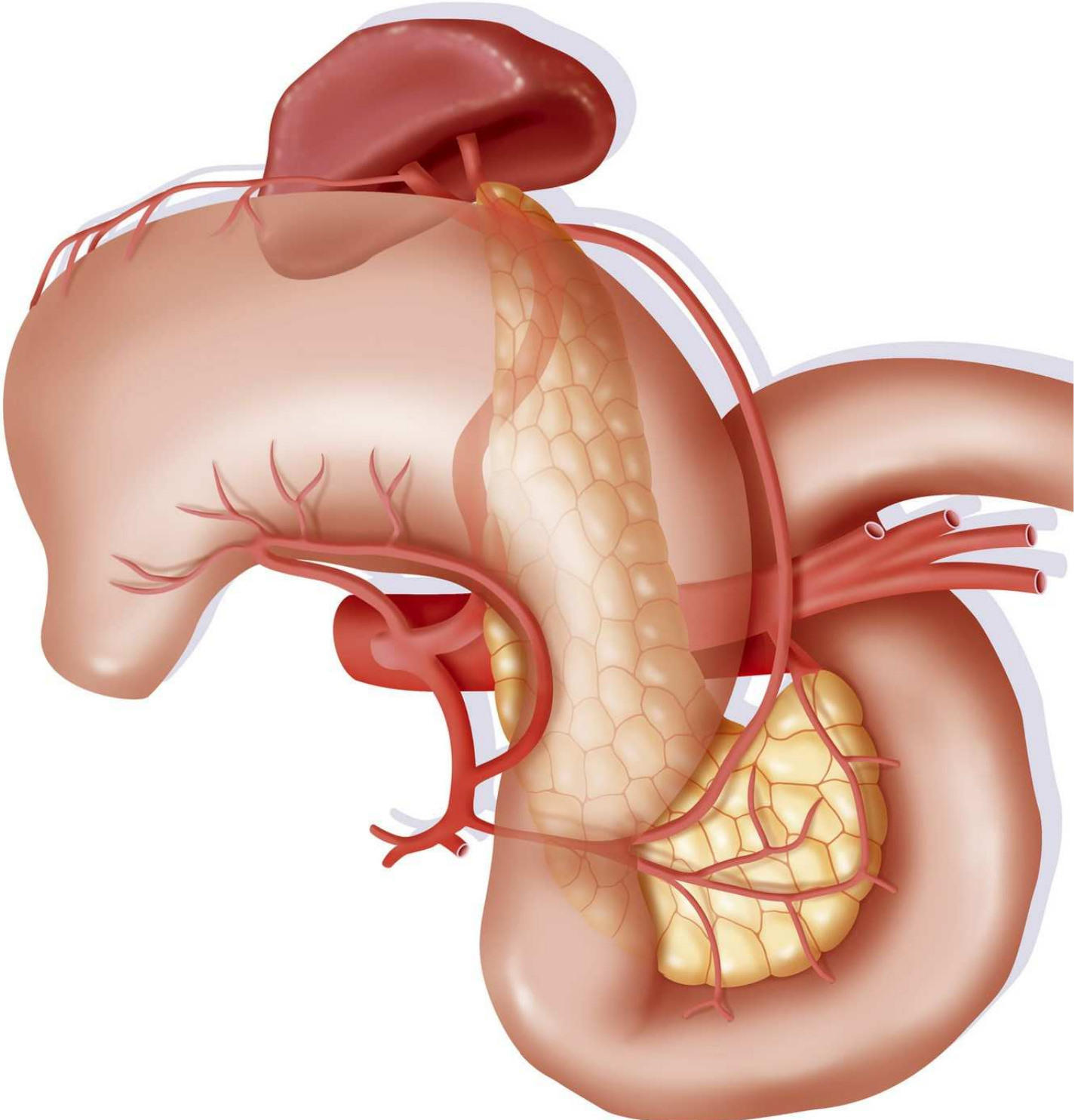
# Perkutánní endoskopie

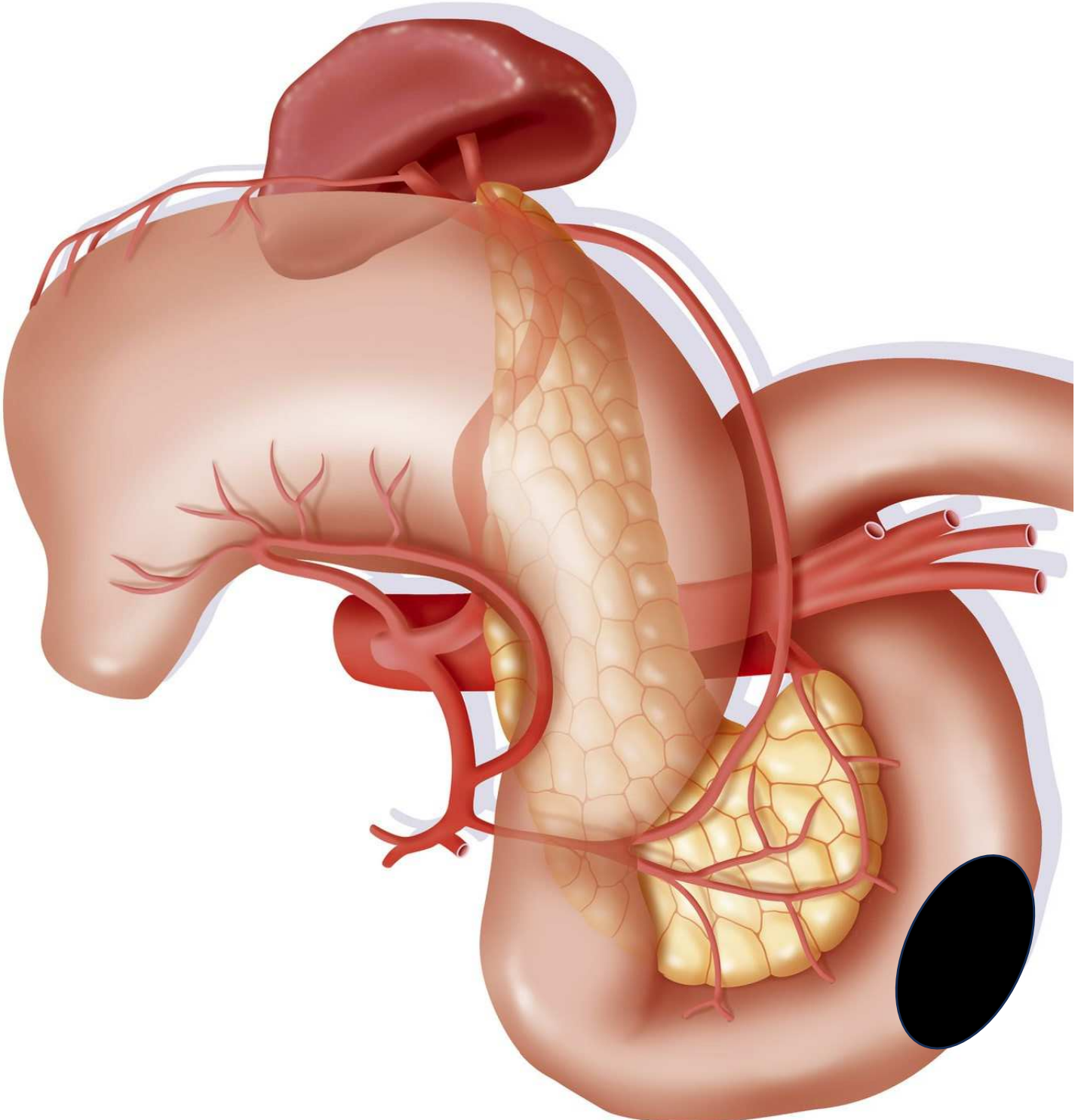


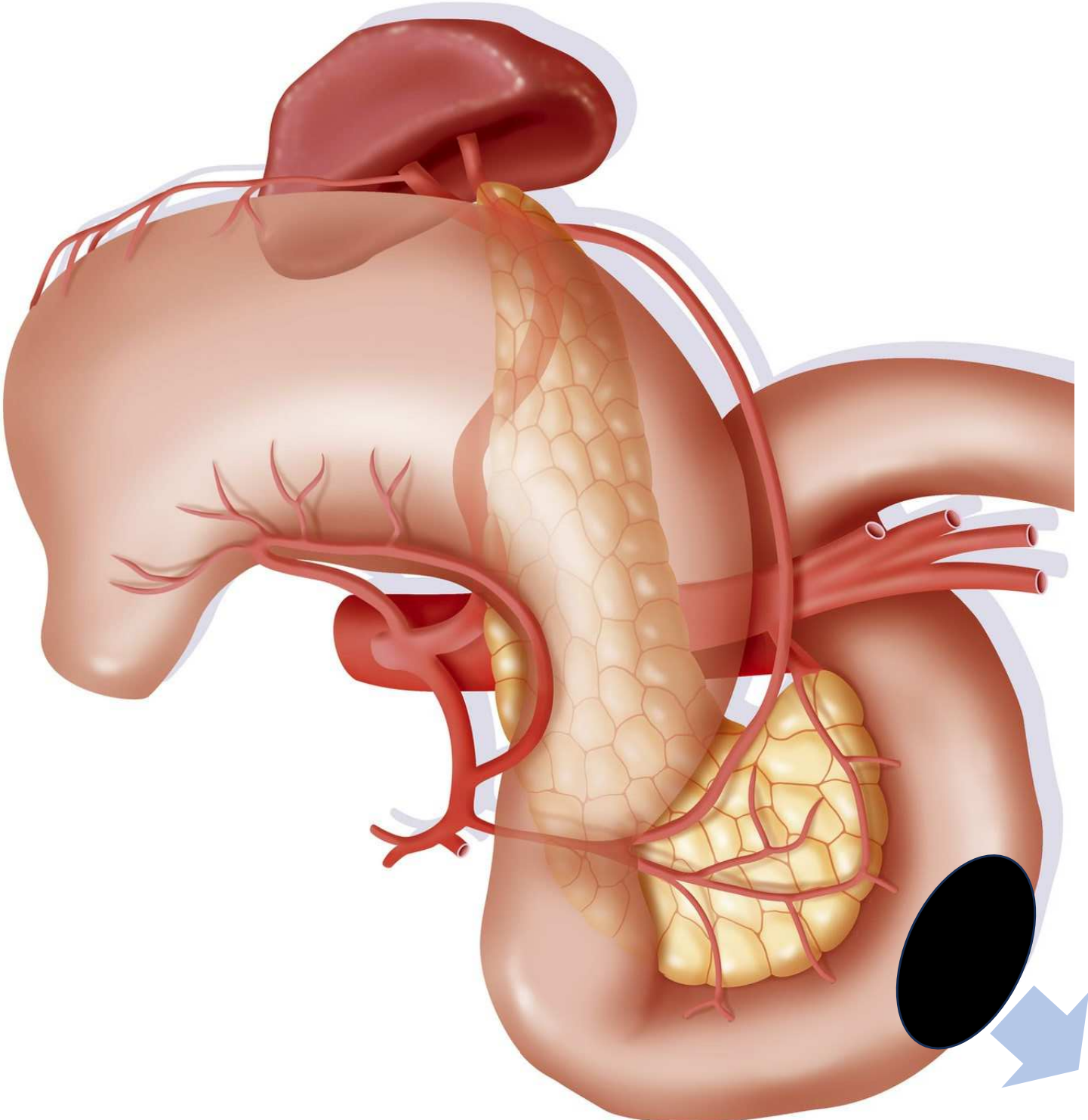
# Perkutánní endoskopie



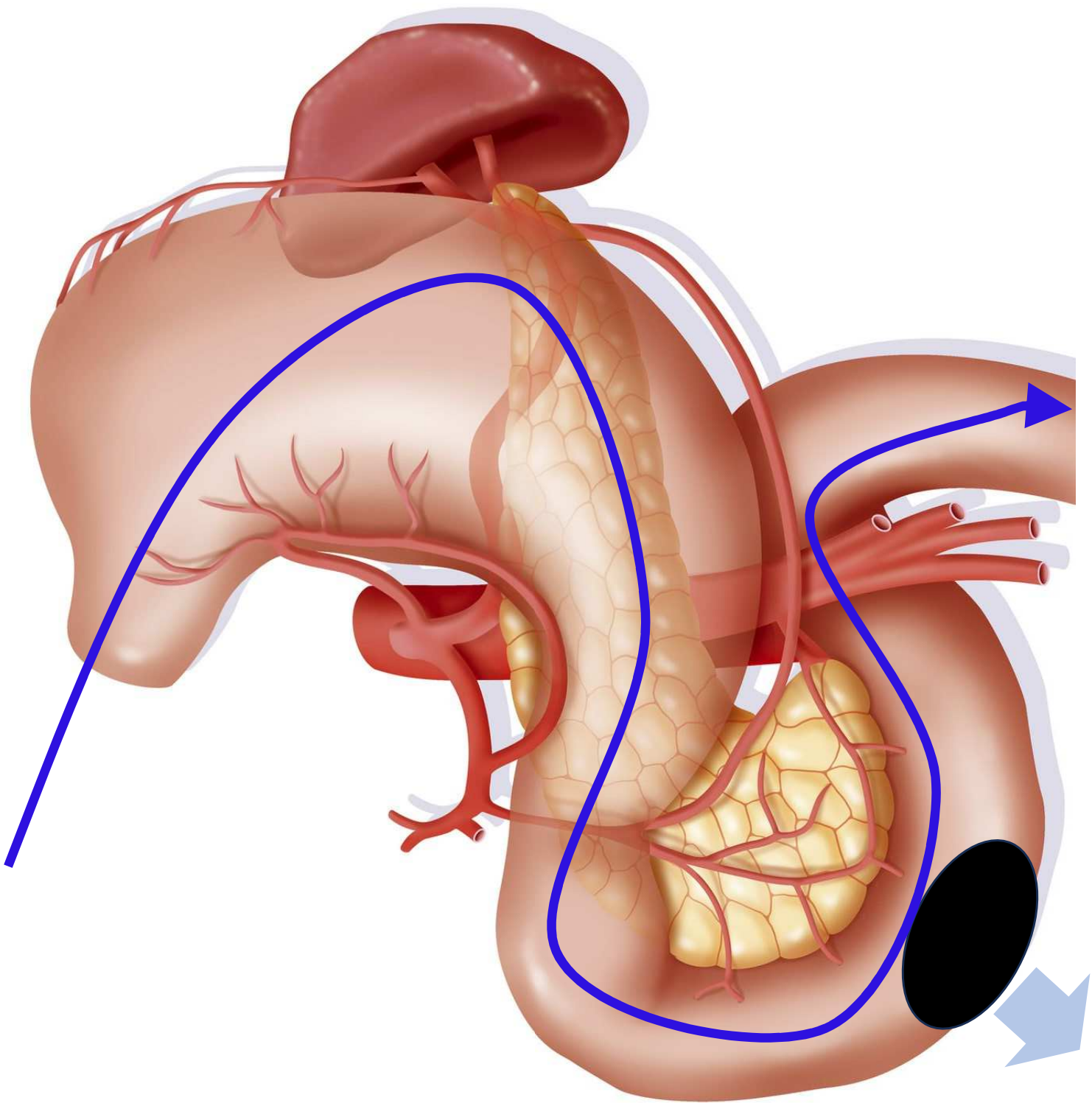




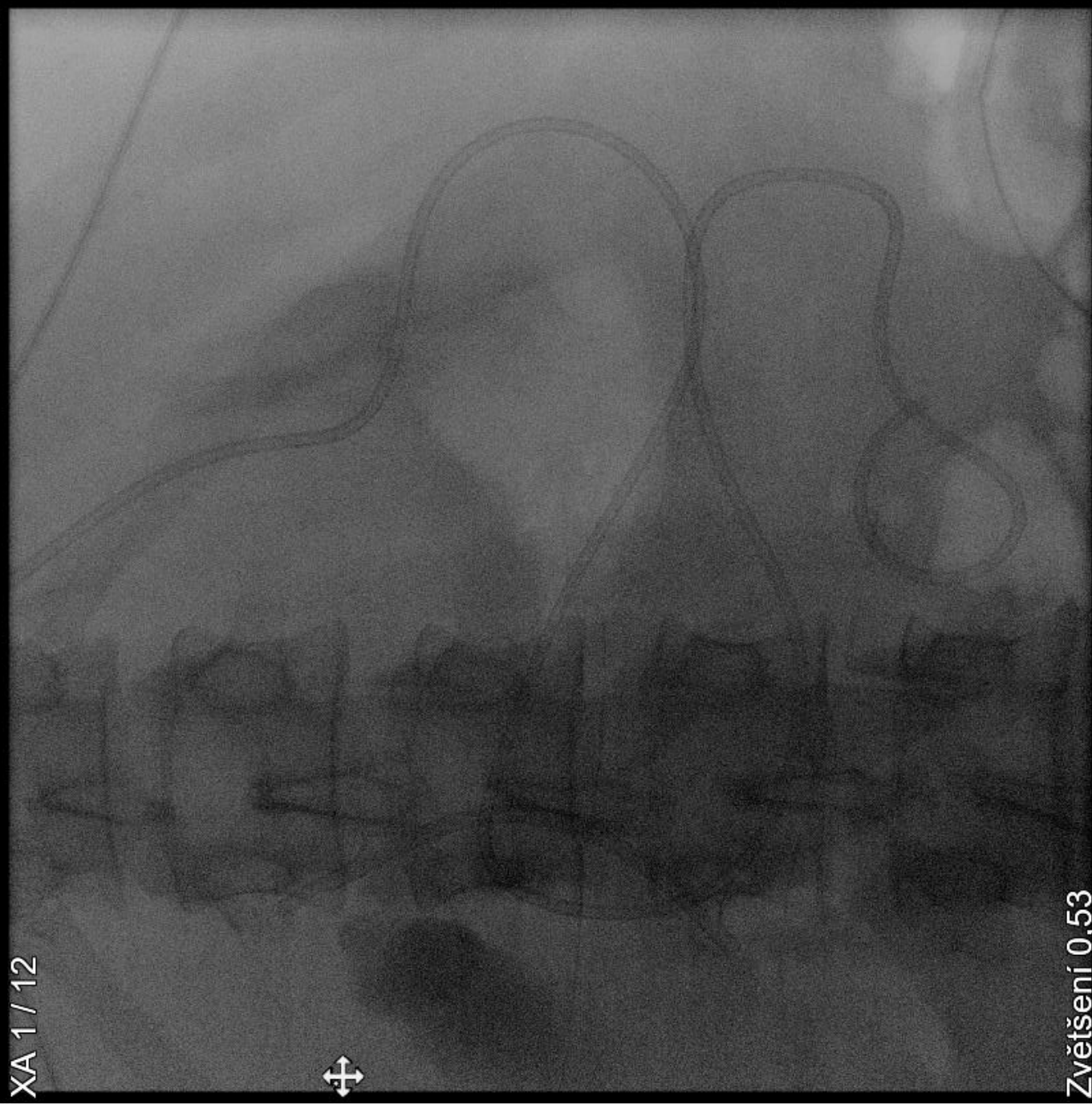








XA 1 / 12



Zvětšení 0,53  
Šířka: 65520  
Střed: 36000

# Enterální výživa distálně od defektu

- Intolerance enterální výživy
- Acholická stolice až 18x denně
- Odpady z defektu duodena 3000 – 5000 ml/den
- Nutnost parenterální výživy a rehydratace
- Nárůst bilirubinu a obstrukčních enzymů
- Důvody?

Fistuloklýza

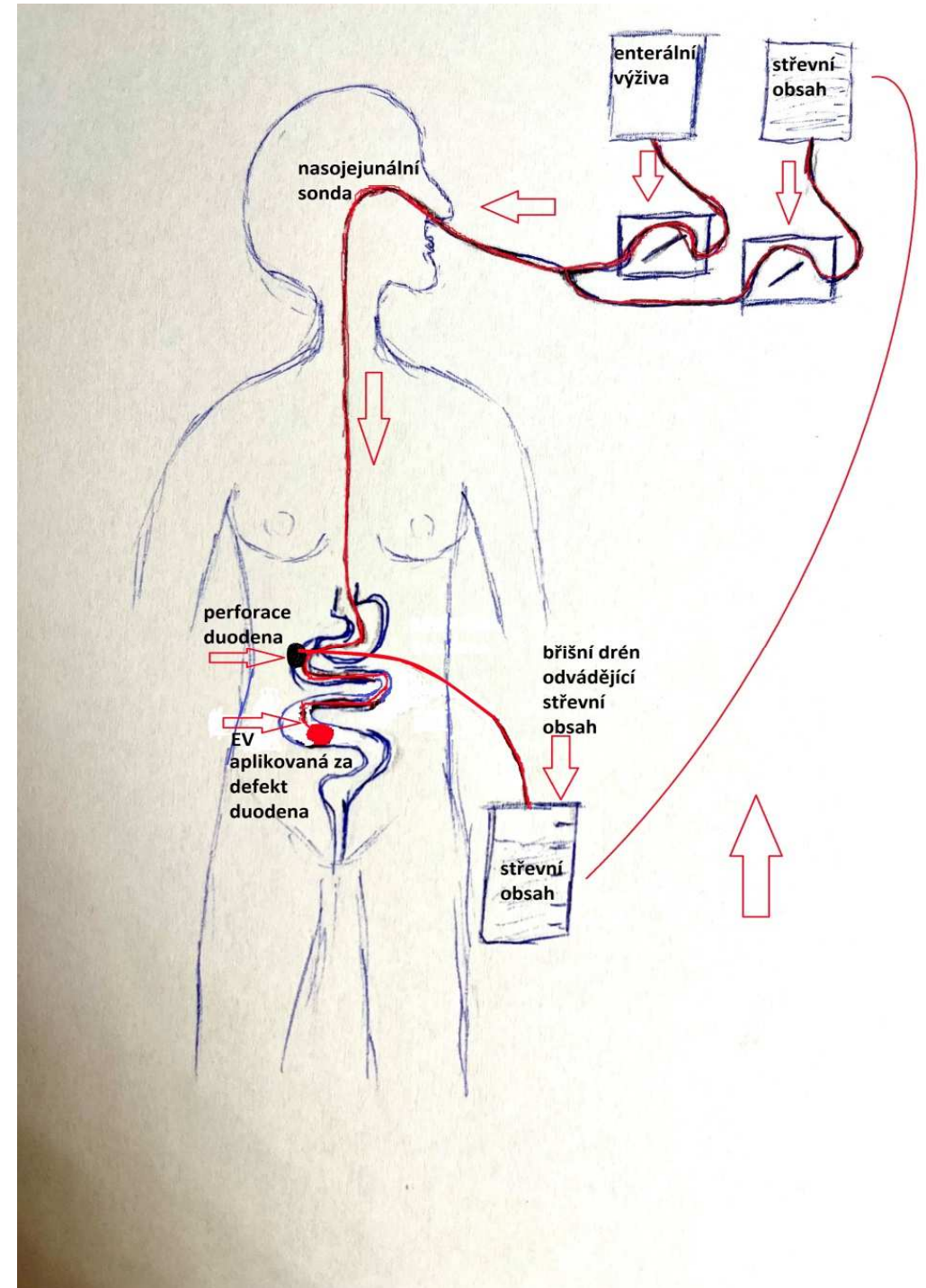
Reinfuze chymu





# Postup

- **Břišní drén k perforaci**
- **Sběrný sáček použit jako reservoár**
- **Obsah podáván tenkou sondou zpět současně s EV**
- **Sonda zavedena **distálně od perforace****



# Fistuloklýza





# Fistuloklýza

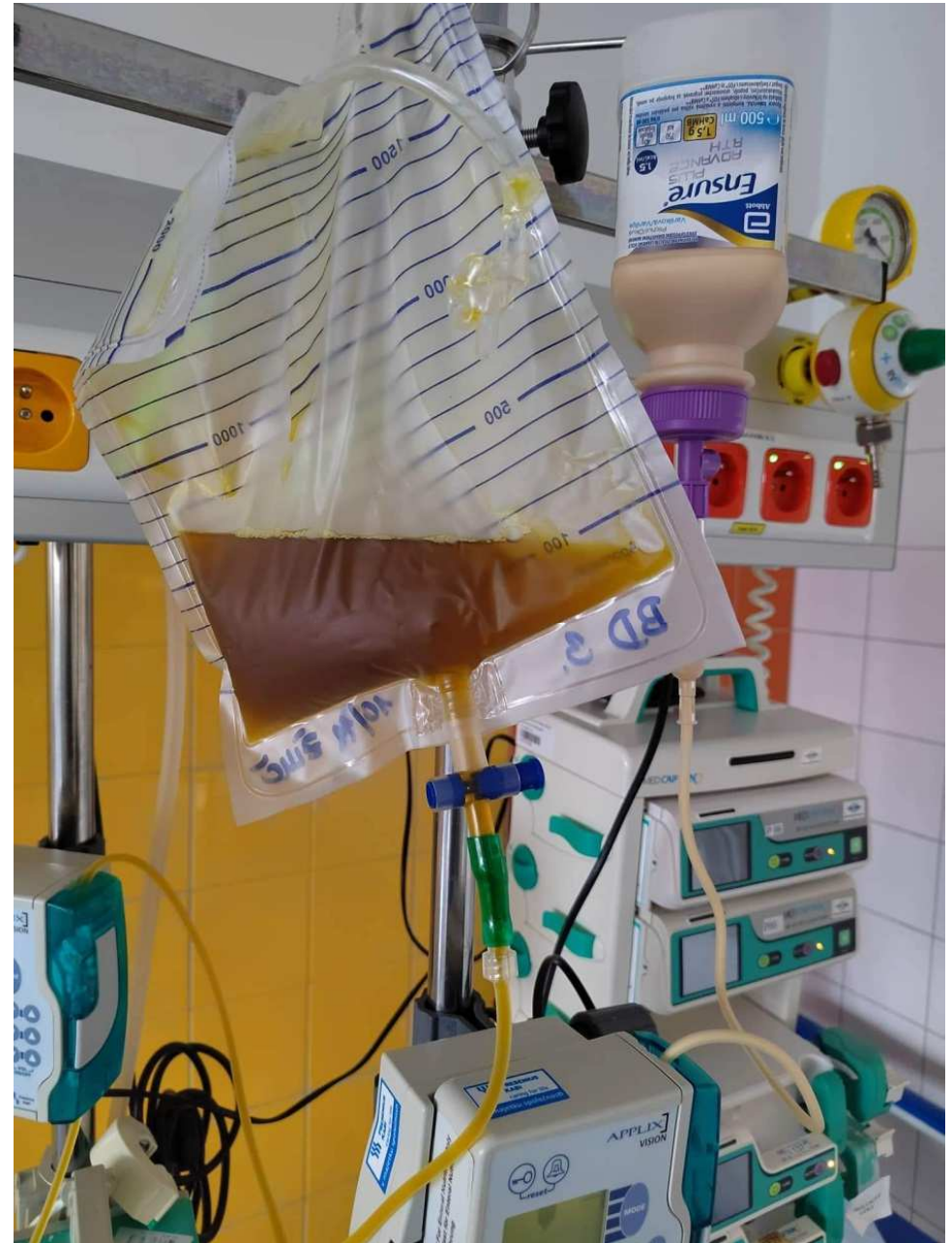


# Fistuloklýza

Záznamový list

P. Kelnýř

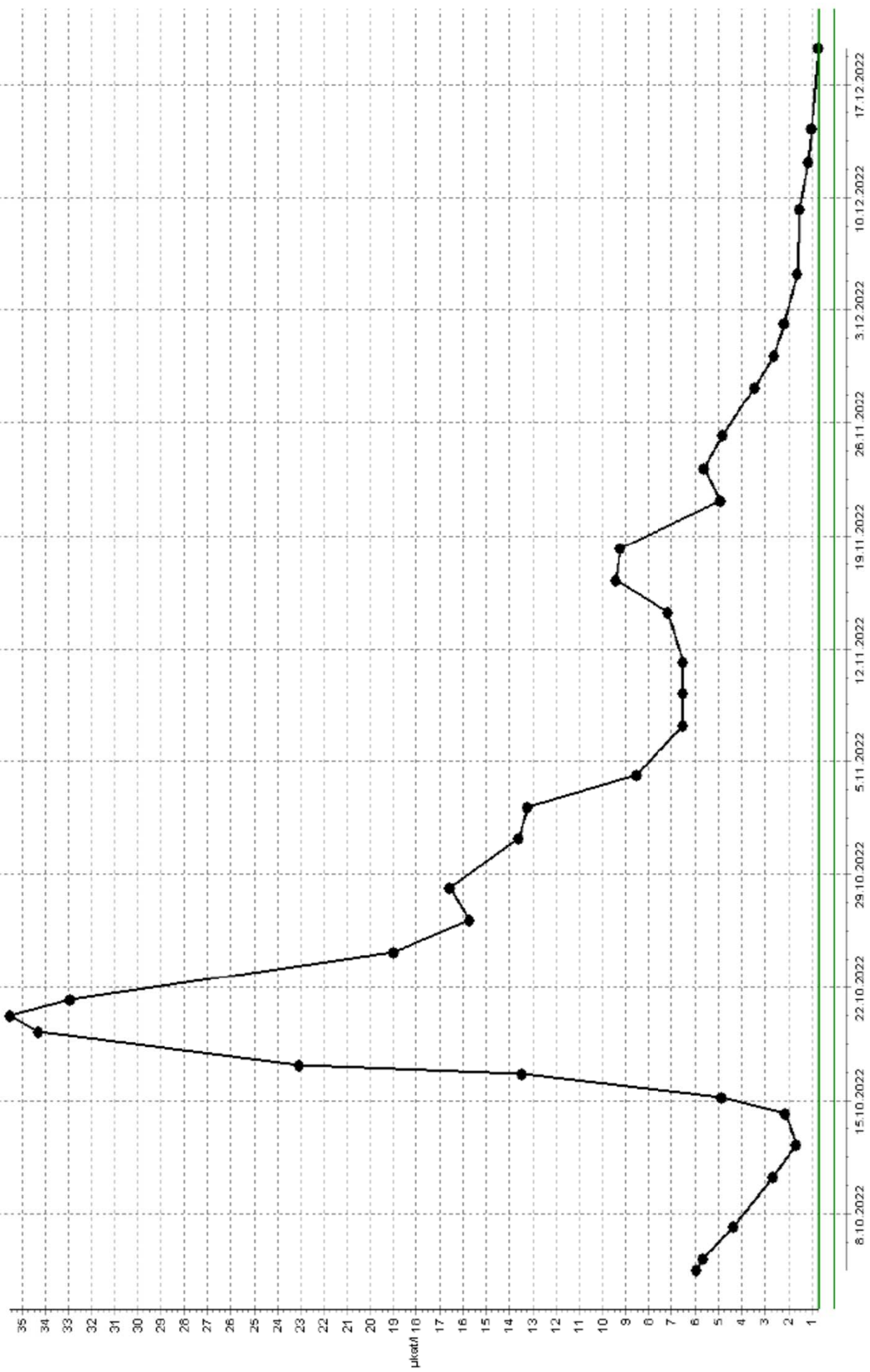
Čas	7	8	9	10	11	12	13	14
TV	FX: 26,4				FX: 26,5°C			
Zornice P/L								
EKG rytmus	SIN				SE			
TP (min)	113	102	101	100	100	96	96	96
TKS/L	105/63			111/61	1		109/62	10
TKM	75			76				
CVT								
ICP/SW								
EtCO <sub>2</sub>								
devoleat		81,5 kg						
Hybnost								
Prokrvení								
Pulzace HK/DK								
DF (spont)/(U)PV	293	263	263	333	213	303	213	10
Počet hodin UPV								
SpO <sub>2</sub> (%)	96	96	98	96	98	97	96	96
O <sub>2</sub>								
SAS/NIPS	4	4	4	4	celkem za 4 h		4	4
VAS	0		0	0	0	0	0	0
NL: (ml/h)								
NL bolusy (ml/h)								
par os (ml)								
sonda (ml)								
líva cnt (ml)	52	52	52	52	208	52	52	52
líva i.v. (ml)	500	60	60	60	300	60	60	60
Krystaloidy (ml)	33	33	33		99			
Krystaloidy (ml)								
Koloidy (ml)								
Krevní deriváty (ml)								
Diuréza (ml)		350		250	500		230	220
Dialýza (ml)								950
Zaludční sonda / zvrátky (ml)								
Stolice (odhad ml)					x	1+		
Drén č. 1/2.5 (ml)	500							
Drén č. 2/2.6 (ml)	30							
Drén č. 3/2.7 (ml)								
Drén č. 4/2.8 (ml)								



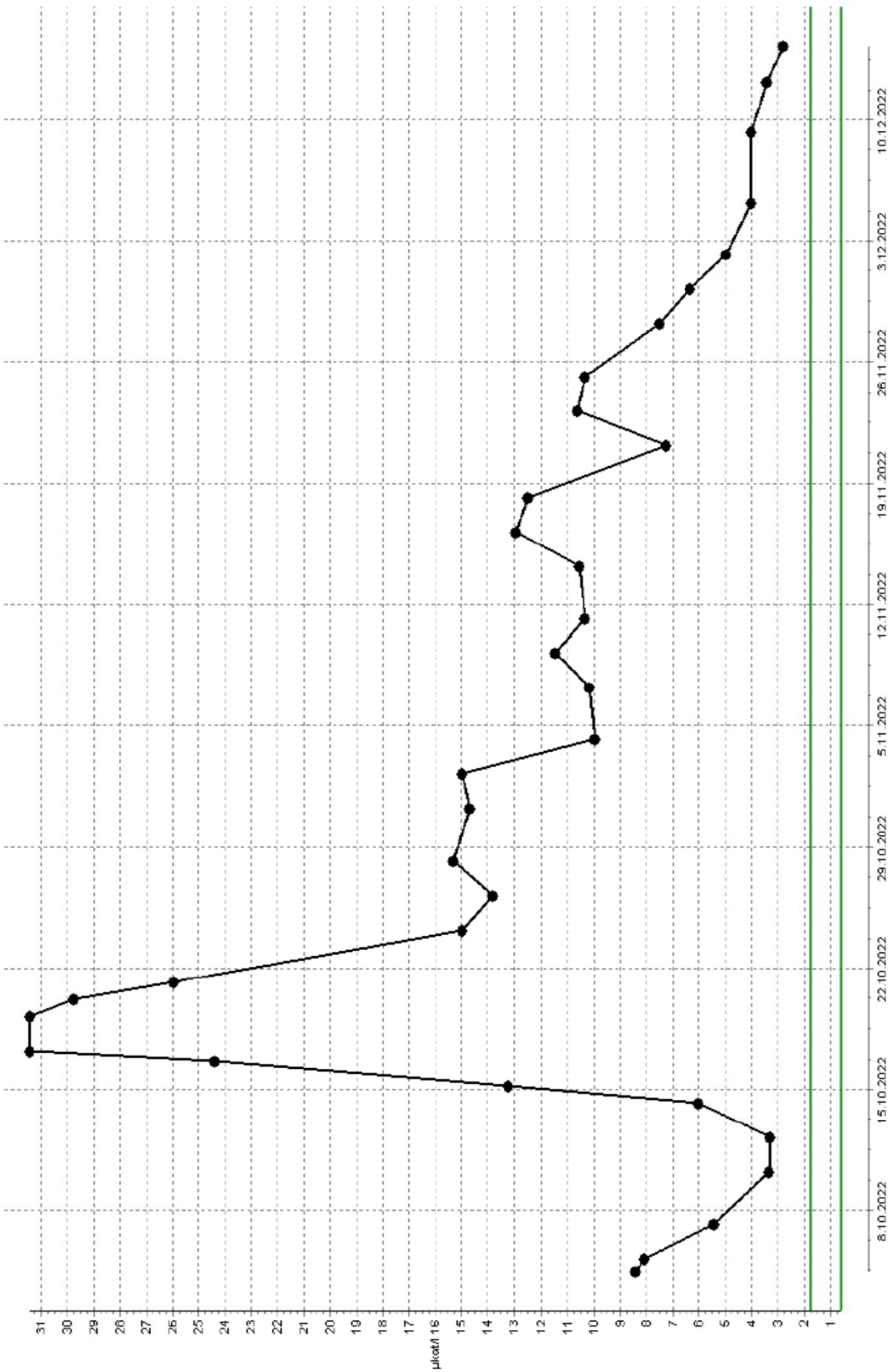
# Fistuloklýza

- rychlé snížení počtu stolic
- stolice normální barvy a konzistence
- vysazení parenterální výživy
- žádná nebo minimální potřeba infuze krystaloidů
- pokles obstrukčních enzymů a bilirubinu

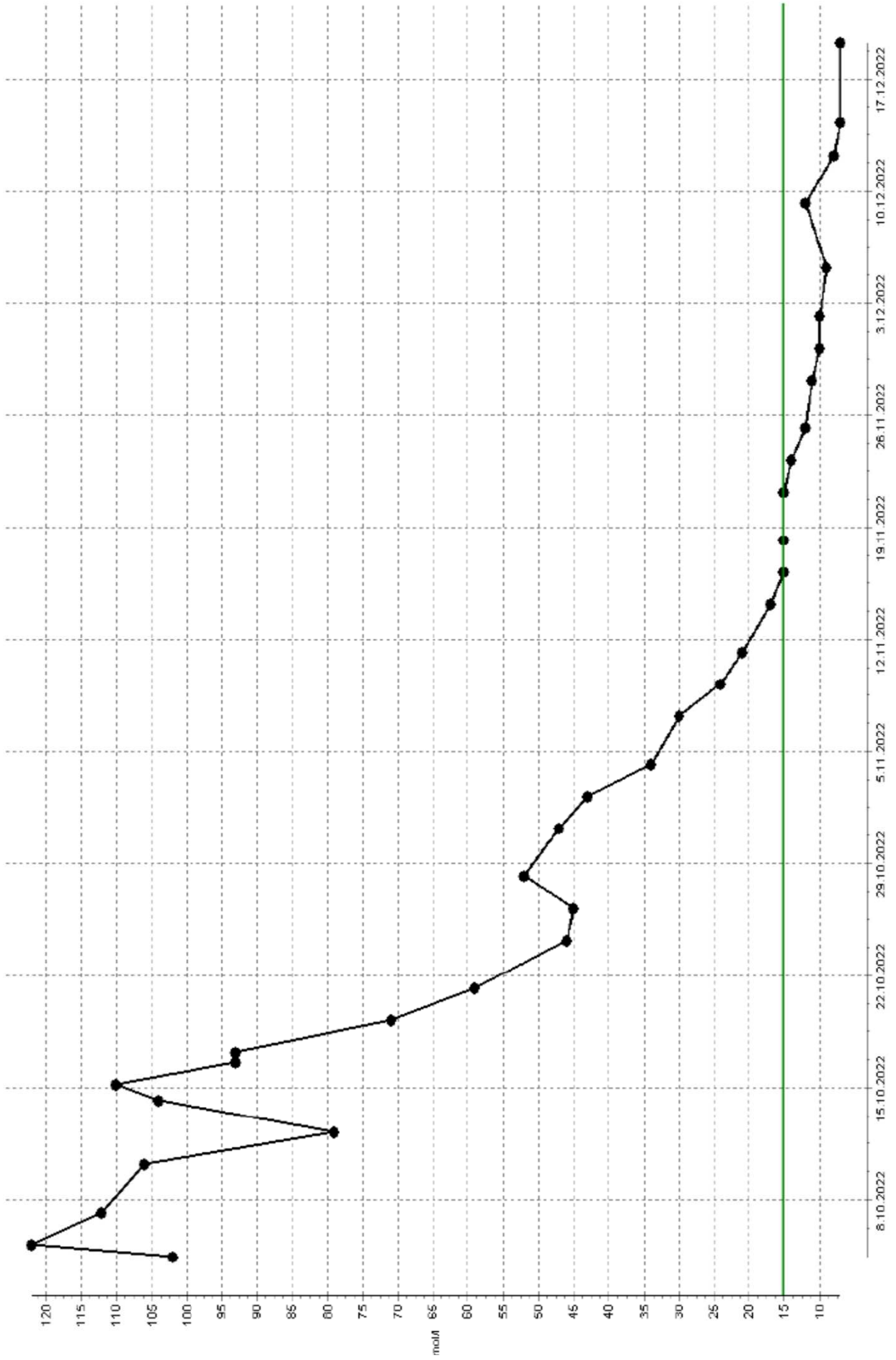
β-CMT  
Oama-glutamyltransferasa



S-ALP  
Fosfatáza alkalická



S-Bilirubin  
Bilirubin



# Další průběh

- pacientka stabilizována
- postupně vysazena sedace
- po 14 dnech vysazena antibiotika
- 19.10.2022 zrušena tracheostomie
- intenzivní rehabilitace
  
- 29.11.2022 skia bez úniku z duodena (59 dní)
- CT břicha – dutina vyhojena
- Sipping, perorální dieta
  
- 21.12.2022 propuštěna domů

# Fistuloklýza jako metoda zajištění výživy u pacienta s vysokoobjemovou enteroatmosférickou píštělí – kazuistika

 PDF uzamčeno  English info

Autoři: L. Bébarová <sup>1</sup>; M. Stašek <sup>1</sup>; M. Szkorupa <sup>1</sup>; T. Řezáč <sup>1</sup>; P. Skalický <sup>1</sup>; M. Horáková <sup>2</sup>; K. Dostálová <sup>3</sup>; M. Loveček <sup>1</sup>

Působíště autorů: I. Chirurgická klinika Lékařské fakulty Univerzity Palackého a Fakultní nemocnice Olomouc <sup>1</sup>; Oddělení intenzivní péče chirurgických oborů Lékařské fakulty Univerzity Palackého a Fakultní nemocnice Olomouc <sup>2</sup>; Klinika anesteziologie, resuscitace a intenzivní medicíny Lékařské fakulty Univerzity Palackého a Fakultní nemocnice Olomouc <sup>3</sup>

Vyšlo v časopise: *Rozhl. Chir.*, 2019, roč. 98, č. 7, s. 287-290.

Kategorie: Kazuistika

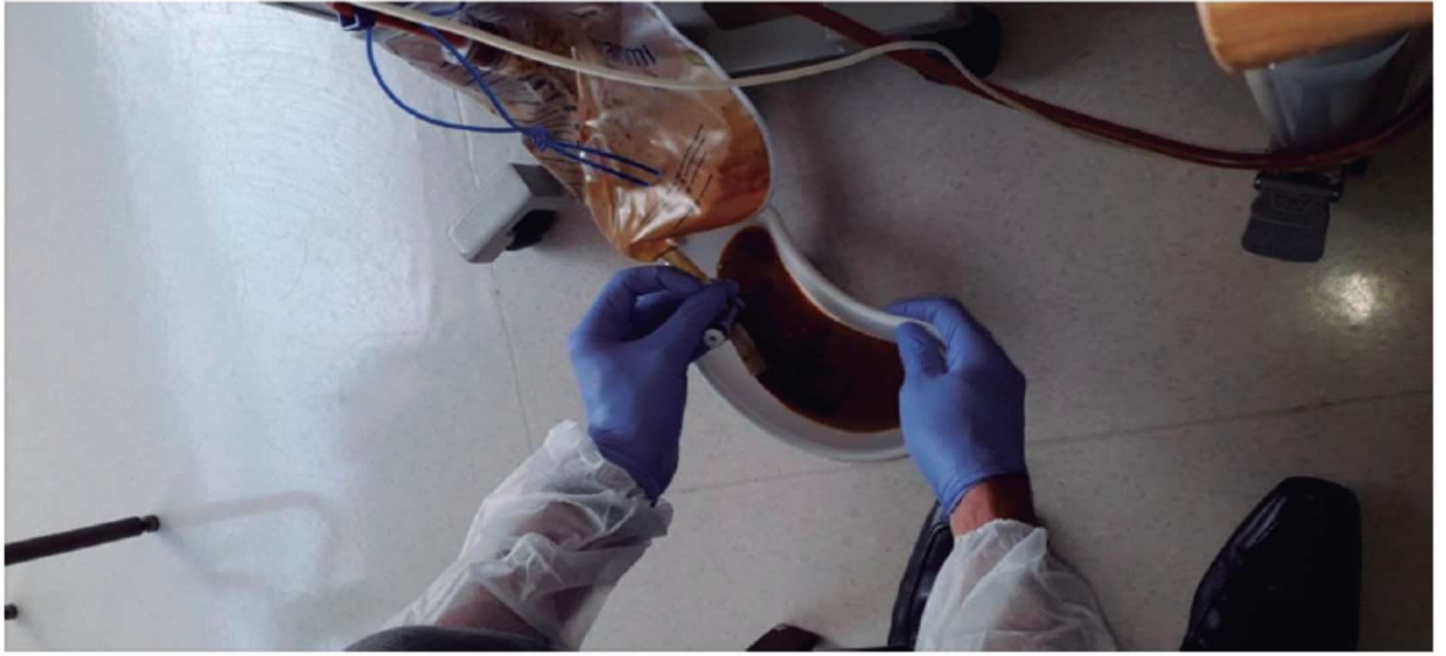


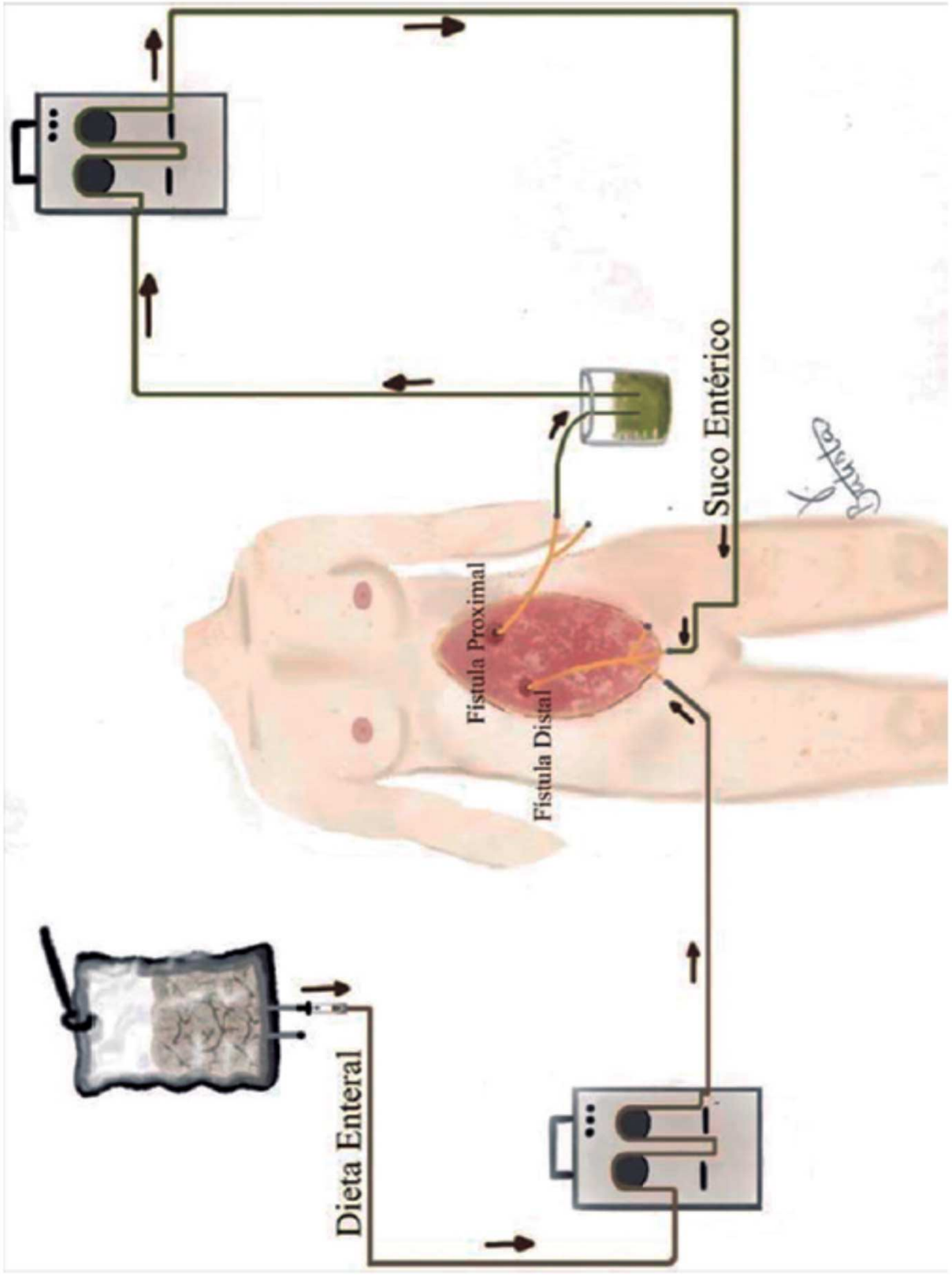
# THE ROLE OF FISTULOCLYSIS IN THE TREATMENT OF PATIENTS WITH ENTEROATMOSPHERIC FISTULAS

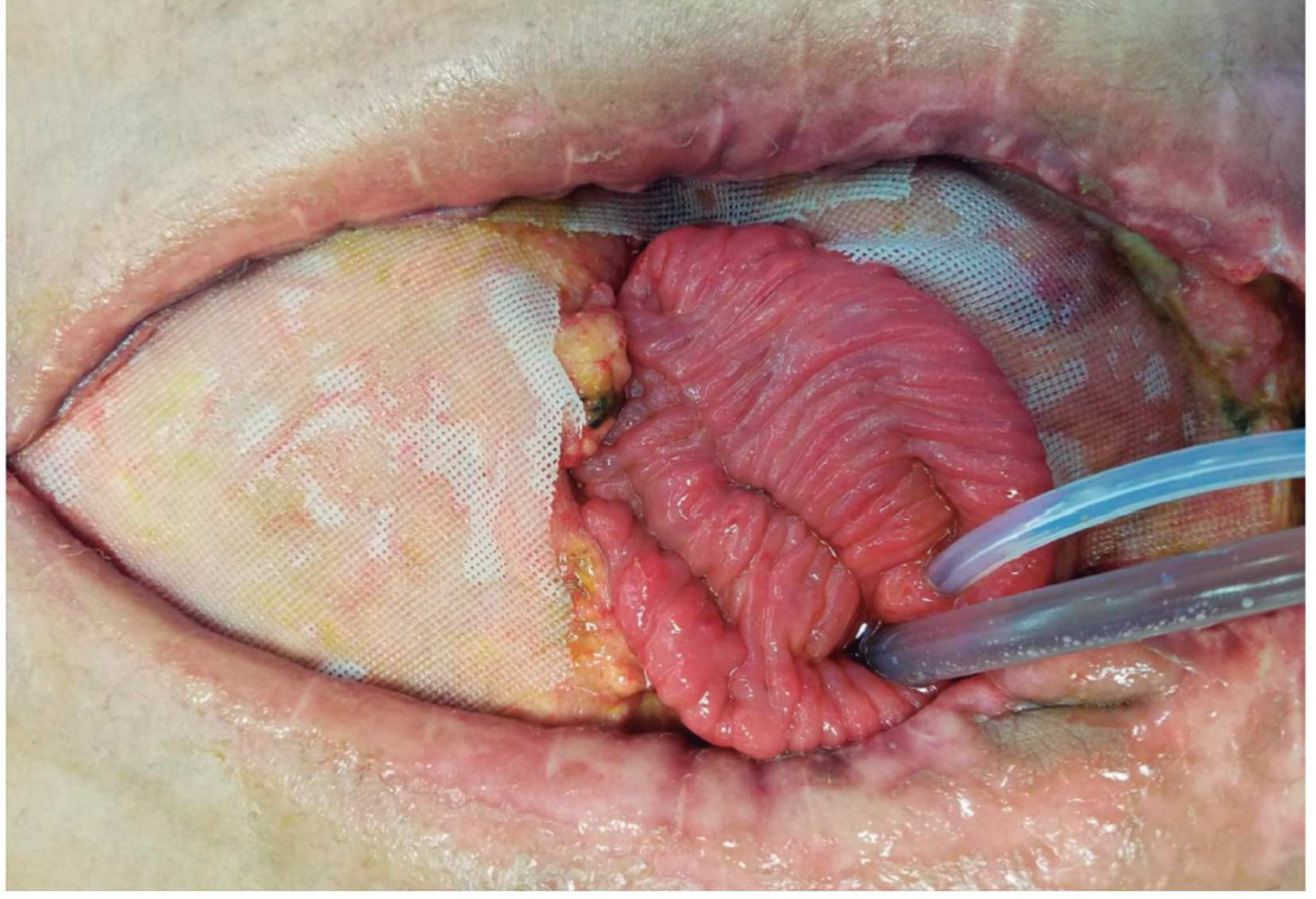
Marcelo Augusto Fontenelle **RIBEIRO-JUNIOR**<sup>1</sup>, Daniel Dante **YEH**<sup>2</sup>, Samara de Souza **AUGUSTO**<sup>3</sup>, Yasmin Garcia Batista **ELIAS**<sup>3</sup>, Paola Rezende **NEDER**<sup>3</sup>, Cássia Tiemi Kawase **COSTA**<sup>3</sup>, Andressa Danielli **MAURÍCIO**<sup>3</sup>, Salomone Di **SAVERIO**<sup>4</sup>

Author	Year	Study	Study design
Appleton et al <sup>1</sup>	2019	Case Report	Retrospective
Bradasawi et al <sup>2</sup>	2015	Review	Retrospective
Bhat et al <sup>3</sup>	2019	Systematic review	Retrospective
Carlson et al <sup>4</sup>	2003	Review	Retrospective
Du Toit A et al <sup>7</sup>	2014	Review and case report	Retrospective
Farrer et al <sup>8</sup>	2015	Cohort	Retrospective
Ham et al <sup>9</sup>	2007	Review and case report	Retrospective
Kaushal et al <sup>10</sup>	2004	Review	Retrospective
Kumpf et al <sup>11</sup>	2017	Review	Retrospective
Lloyd et al <sup>12</sup>	2006	Review	Retrospective
Niu et al <sup>13</sup>	2019	Case Report	Retrospective
Ortiz et al <sup>14</sup>	2017	Review	Retrospective
Peer et al <sup>15</sup>	2008	Case Report	Retrospective
Pflug et al <sup>16</sup>	2013	Case Report	Retrospective
Picot et al <sup>17</sup>	2017	Cohort	Prospective
Polk et al <sup>18</sup>	2012	Review	Retrospective
Sathyanarayana et al <sup>19</sup>	2005	Case Report	Retrospective
Sharma et al <sup>20</sup>	2020	Clinical trial	Prospective
Sica et al <sup>21</sup>	2007	Review and case report	Retrospective
Slater et al <sup>22</sup>	2009	Review	Retrospective
Stein SL <sup>23</sup>	2019	Review	Retrospective
Teubner et al <sup>24</sup>	2004	Serie of cases	Retrospective
Thibault et al <sup>25</sup>	2016	Review	Retrospective
Willcutts et al <sup>26</sup>	2015	Case Report	Retrospective
Wright et al <sup>27</sup>	2013	Case Report	Retrospective
Wu et al <sup>28</sup>	2014	Cohort case series	Retrospective
Ye et al <sup>29</sup>	2013	Case Report	Retrospective
Yuan et al <sup>30</sup>	2011	Cohort	Retrospective

13 kazuistik  
11 přehledových článků  
4 kohortové studie, 1 prospektivní  
1 prospektivní studie







# Chyme Reinfusion in Intestinal Failure Related to Temporary Double Enterostomies and Enteroatmospheric Fistulas

Denis Picot <sup>\*</sup>, Sabrina Layec , Eloi Seynhaeve, Laurence Dussaulx , Florence Trivin and Marie Carsin-Mahe



**ICNS**

**NUTRI-ROUNDS**

**Chyme Reinfusion Therapy**

**December 7-8 2022**

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10:00 - 11:00 PM (GMT)

Thursday 8th | 6:00 - 7:00 AM (Asia)

11:00 AM - 12:00 NOON (NZT)



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**Clinical Outcomes with  
Chyme Reinfusion Therapy**

**Speaker**

**Professor Ian Bissett, MD**

Professor of Surgery,  
University of Auckland,  
Adult Director of the NZ National Intestinal  
Failure and Rehabilitation Service



**Practical experiences with  
Chyme Reinfusion Therapy**

**Speaker**

**Emma Ludlow, STN**

Stoma Nurse, Chyme reinfusion specialist  
and Chair of the New Zealand College of  
Stomal Therapists



**Moderator**

**Professor Gil Hardy PhD FASPEN**

ICNS Founder and Past Chair



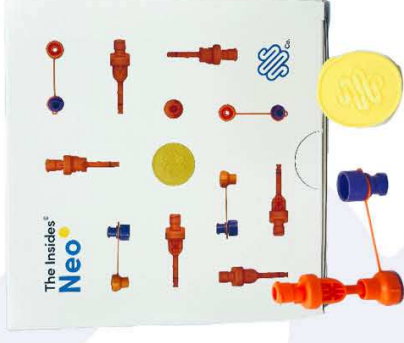


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# Chyme Reinfusion Reducing the Postoperative Complications After Definitive Surgery for Small Intestinal Enteroatmospheric Fistula: A Cohort Study

*Weiliang Tian<sup>1†</sup>, Risheng Zhao<sup>2†</sup>, Xin Xu<sup>2†</sup>, Yunzhao Zhao<sup>1,2</sup>, Shikun Luo<sup>2\*</sup>, Shen Tao<sup>3</sup> and Zheng Yao<sup>2\*</sup>*

# Výhody a nevýhody

- Výhody
  - rovnováha vody a minerálů
  - enterální výživa
  - obnova enterohepatálního cyklu
  - normalizace jaterních funkcí
  - udržení střevní bariéry
  - cena
  - jednoduchost
- Nevýhody
  - nutnost příznivých anatomických poměrů
  - manipulace se střevním obsahem
  - odpor perzonálu

# ESPEN guideline on clinical nutrition in the intensive care unit

Pierre Singer<sup>a,\*</sup>, Annika Reintam Blaser<sup>b,c</sup>, Mette M. Berger<sup>d</sup>, Waleed Alhazzani<sup>e</sup>, Philip C. Calder<sup>f</sup>, Michael P. Casaer<sup>g</sup>, Michael Hiesmayr<sup>h</sup>, Konstantin Mayer<sup>i</sup>, Juan Carlos Montejo<sup>j</sup>, Claude Pichard<sup>k</sup>, Jean-Charles Preiser<sup>l</sup>, Arthur R.H. van Zanten<sup>m</sup>, Simon Oczkowski<sup>e</sup>, Wojciech Szeklik<sup>n</sup>, Stephan C. Bischoff<sup>o</sup>

## Recommendation 47

**In the case of an unrepaired anastomotic leak, internal or external fistula, a feeding access distal to the defect should be aimed for to administer EN.**

**Grade of recommendation: GPP – strong consensus (95.83% agreement)**

## Recommendation 48

**In the case of an unrepaired anastomotic leak, internal or external fistula, or if distal feeding access is not achieved, EN should be withheld and PN may be commenced.**

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## Recommendation 49

**In case of high output stoma or fistula, the appropriateness of chyme reinfusion or enteroclysis should be evaluated and performed if adequate.**

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Děkuji za pozornost

