REKTUMKARZINOM

Management
von Spät- und Langzeitkomplikationen

Martina M. Lemmerer

SPÄTKOMPLIKATIONEN

- Anastomosenstenose
- Sinus / Chronischer Abszess
- Pelvine Sepsis
- Osteomyelitis
- Hydronephrose, Harnblasenbeteiligung
- LARS- low anterior resection syndrome
- Stuhlinkontinenz
- Perineale Herniation

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- **Perineale Herniation**

DSCA

DUTCH SURGICAL
COLORECTAL AUDIT

- n = 26,511 (2009 to 2011)
- **92 hospitals providing colorectal cancer care in the Netherlands**
  - 8 university, 47 teaching and 37 non- teaching hospitals
- **15 case-mix factors**
  - age, gender, BMI, ASA-score, Charlson comorbidity-score, history of previous abdominal surgery, TNM stage, RTX, tumorkomplications, multiple synchronous tumors, urgency and type of procedure (right, left/ transverse, sigmoid, low anterior or abdomino-perineal resection, and/or extended resection for locally advanced tumour or metastases
- **Outcome**
  - mortality, 30d-mortality, morbidity, i.e. leading to an intervention (operative or percutaneous) or to prolonged hospital stay (14 days or more)

N.J. Van Leersum et al. / EJSO 39 (2013) 1063–1070

DSCA

DUTCH SURGICAL
COLORECTAL AUDIT

Table 2
Results of performance indicators for colorectal cancer care 2009–2011.

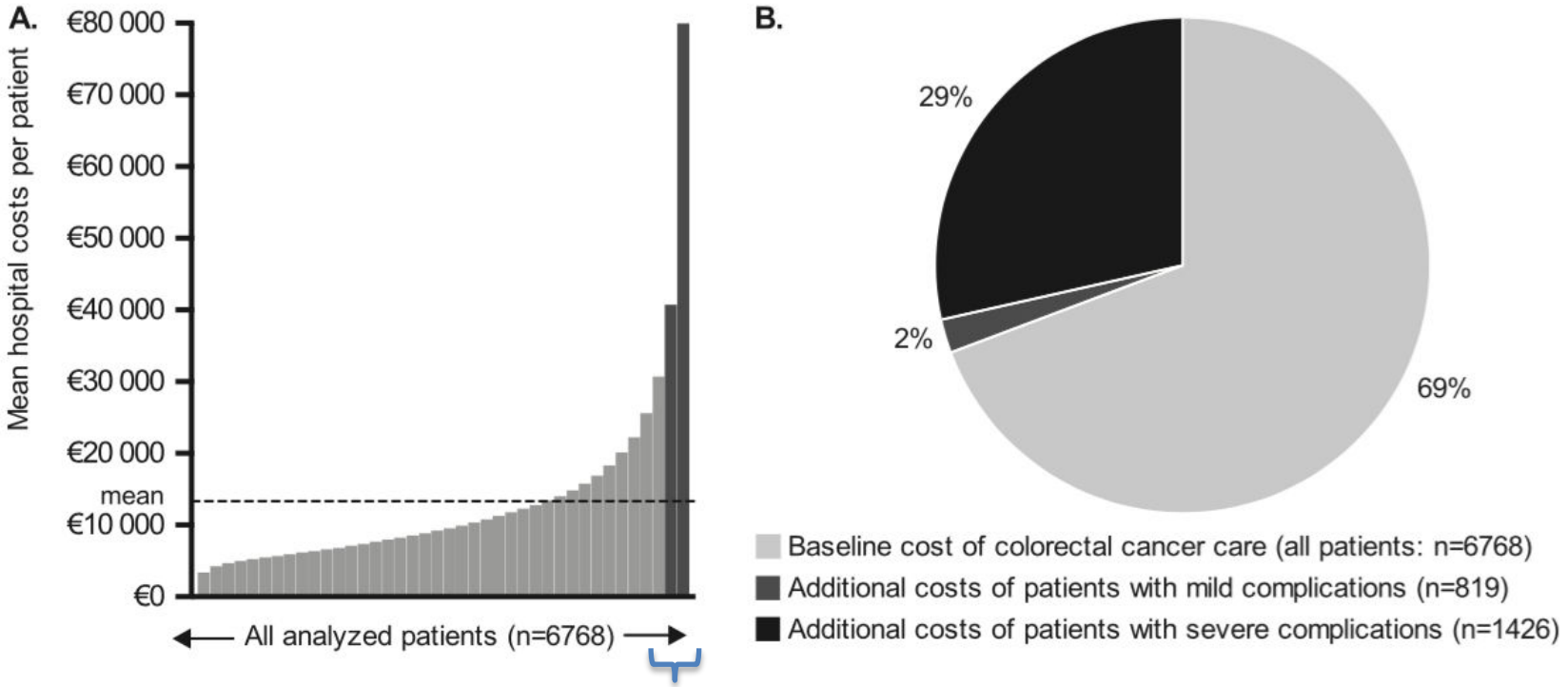
	Colon							Rectum						
	2009		2010		2011		*p*-value	2009		2010		2011		*p*-value
Process														
Cases discussed in preoperative MDT	2286	46%	3504	56%	4255	68%	<0.01	1625	80%	2249	91%	2400	96%	<0.01
Total colonoscopy	2931	61%	3816	62%	4149	67%	<0.01	1467	76%	1858	77%	2016	83%	<0.01
Preoperative MRI								1625	80%	2016	81%	2129	85%	<0.01
CRM reported in pathology rapport								980	48%	1472	59%	2066	80%	<0.01
>10 lymph nodes in sample	3623	73%	4902	78%	5423	84%	<0.01	1182	58%	1520	61%	1700	68%	<0.01
Outcomes														
All complications	1595	33%	2062	33%	1918	31%	<0.01	793	40%	1007	41%	945	38%	<0.01
Reintervention	706	15%	917	15%	699	13%	<0.01	351	17%	435	18%	352	14%	<0.01
Anastomotic leakage[a]	328	7.5%	429	7.8%	364	6.4%	<0.01	98	11.5%	144	12.4%	112	9.1%	<0.01
Hospital stay (mean in days)	13		12		11		<0.01	16		14		14		<0.01
CRM positive margin								138	14%	175	12%	168	8.5%	<0.01
30-day mortality	223	4.5%	255	4.1%	210	3.4%	<0.01	48	2.4%	48	1.9%	54	2.2%	<0.01
In-hospital mortality	232	4.7%	276	4.4%	230	3.6%	0.02	55	2.7%	55	2.2%	64	2.5%	0.663
In-hospital mortality/30 day mortality	289	5.8%	300	4.8%	256	4.0%	<0.01	77	3.8%	58	2.3%	69	2.7%	0.035
Total	4960		6293		6263			2035		2484		2494		

MDT: Multidisciplinary Team; MRI: Magnetic Resonance Imaging; CRM: Circumferential Resection Margin.
[a] Only for patients with a primary anastomosis.

N.J. Van Leersum et al. / EJSO 39 (2013) 1063–1070

Costs of complications after colorectal cancer surgery in the Netherlands: Building the business case for hospitals

J.A. Govaert [a,b,*], M. Fiocco [c,d], W.A. van Dijk [e,f], A.C. Scheffer [e], E.J.R. de Graaf [g], R.A.E.M. Tollenaar [a,i], M.W.J.M. Wouters [a,h,i], On behalf of the Dutch Value Based Healthcare Study Group[1]



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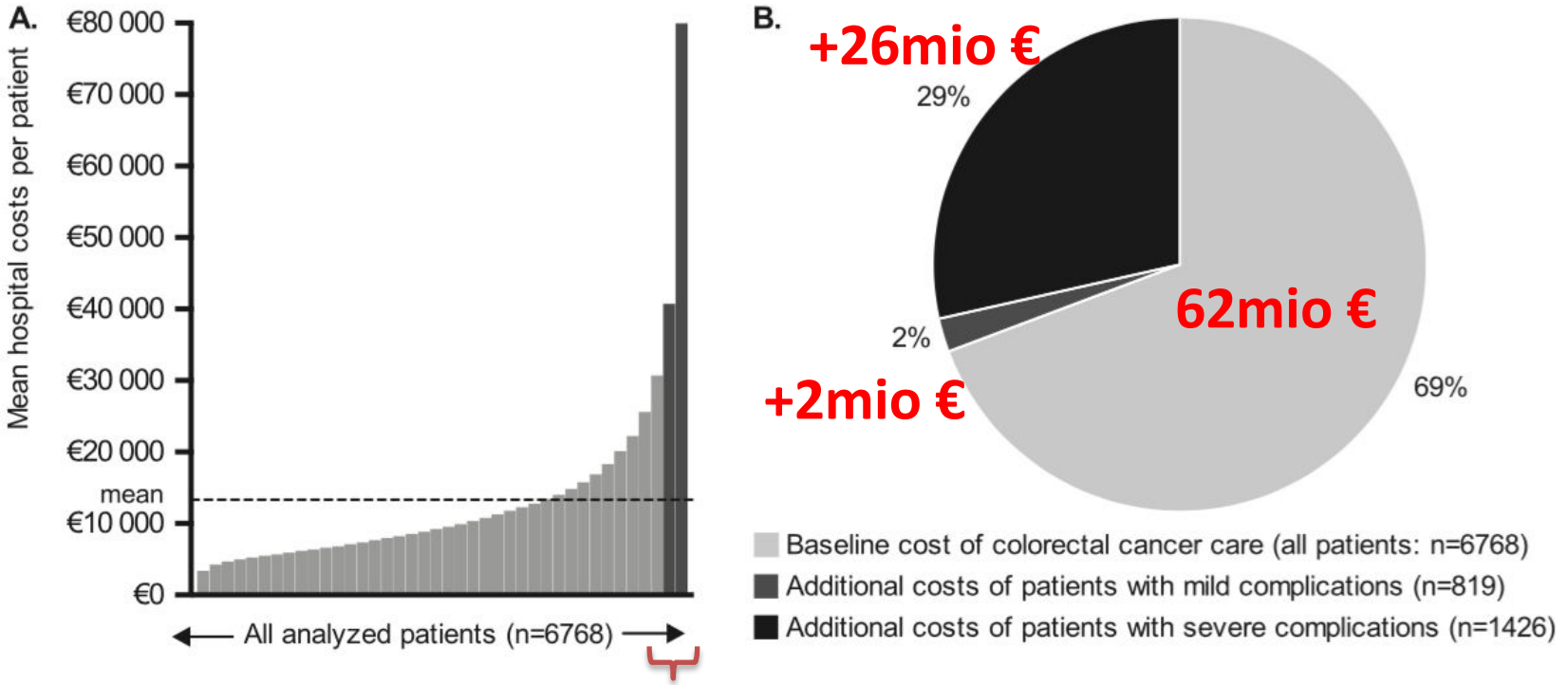

5%

23% der Kosten

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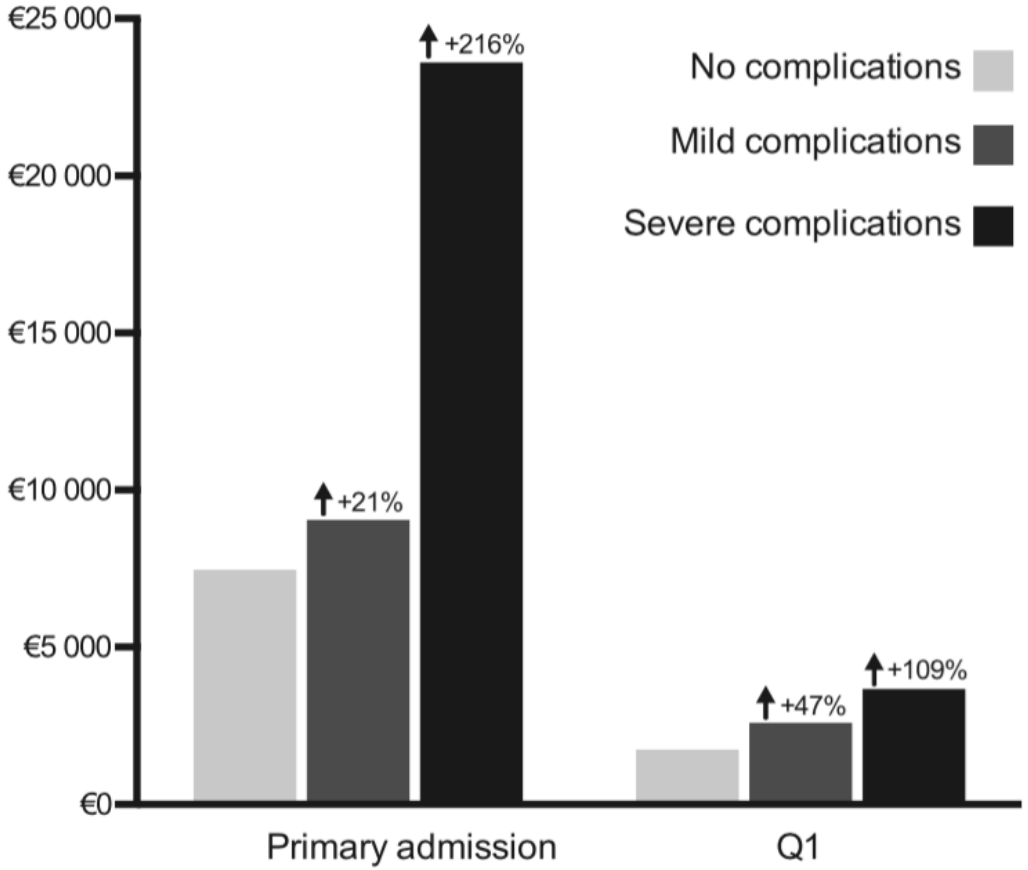

J.A. Govaert et al./EJSO 41 (2015) 1059–1067

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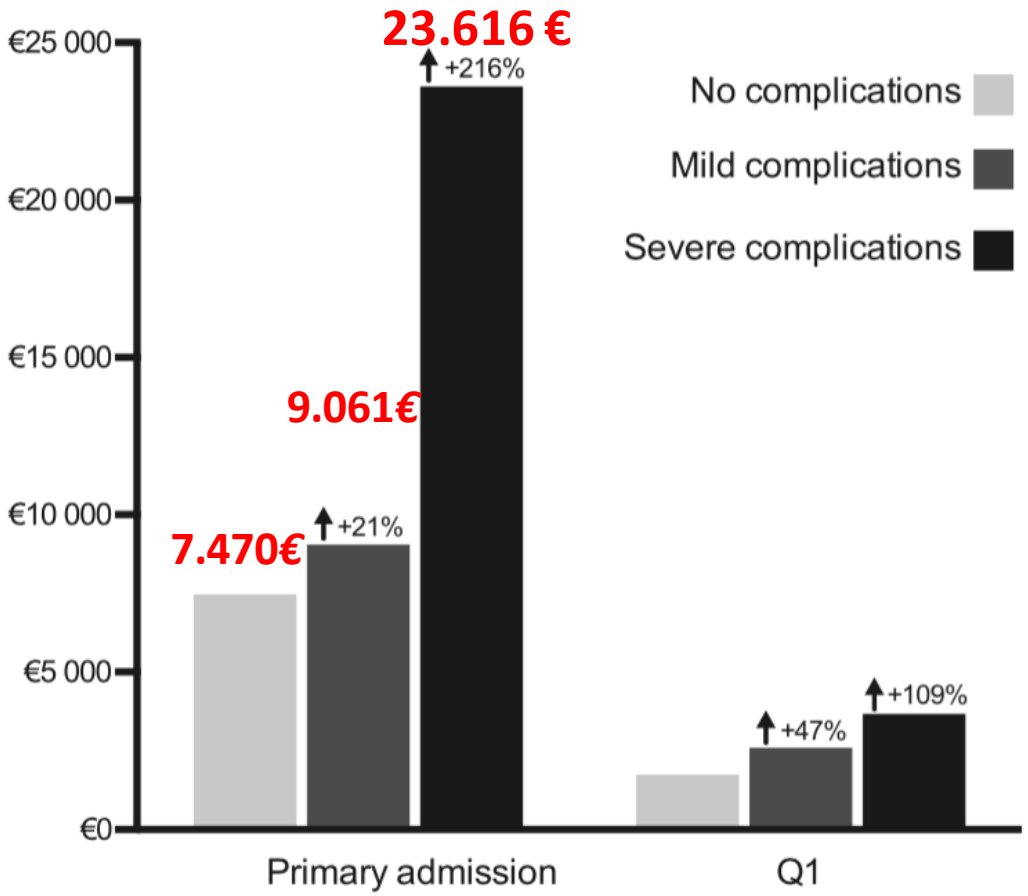

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DUTCH SURGICAL
COLORECTAL AUDIT

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Process								
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Total colonoscopy								
Preoperative MRI								
CRM reported in pathol								
>10 lymph nodes in san								
Outcomes								
All complications								
Reintervention								
Anastomotic leakage[a]								
Hospital stay (mean in d								
CRM positive margin								
30-day mortality								
In-hospital mortality								
In-hospital mortality/30								
Total								

MDT: Multidisciplinary
[a] Only for patients with

- **MDT Board**
- **preoperative MR-imaging** for rectal cancer surgery
- **postoperative complication colon** 33 to 31% (p < 0.01)
  rectal resections 40 to 38% (p < 0.01)
- **reintervention rate colon** 15 to 13% (p < 0.001)
  rectal 17 to 14% (p < 0.01).
- **hospital stay** regressed with 2 days (Colon & rectal resections)
- **postoperative mortality rate colon** 5.8 to 4.0% (p < 0.012)
  rectal 3.8 to 2.7% (p < 0.001)

N.J. Van Leersum et al. / EJSO 39 (2013) 1063–1070

RISIKOFAKTOREN

- tiefe Anastomose★*
- präoperative Radiatio★*
- männliches Geschlecht★*

- Intraoperativ technische Probleme★
- Rauchen*

★Mathiessen et al.: Risk factors for anastomotic leakage after anterior resection of the rectum. Colorectal Dis. 2004 Nov;6(6):462-9.

* C. A. Bertelsen et al.: Anastomotic leakage after anterior resection for rectal cancer: risk factors Colorectal Dis. 2010, 12, 37–43

STADIENEINTEILUNG

Table III. Proposal for the definition and severity grading of anastomotic leakage after anterior resection of the rectum

Definition		Defect of the intestinal wall integrity at the colorectal or colo-anal anastomotic site (including suture and staple lines of neorectal reservoirs) leading to a communication between the intra- and extraluminal compartments. A pelvic abscess close to the anastomosis is also considered as anastomotic leakage.
Grade	A	Anastomotic leakage requiring no active therapeutic intervention
	B	Anastomotic leakage requiring active therapeutic intervention but manageable without re-laparotomy
	C	Anastomotic leakage requiring re-laparotomy

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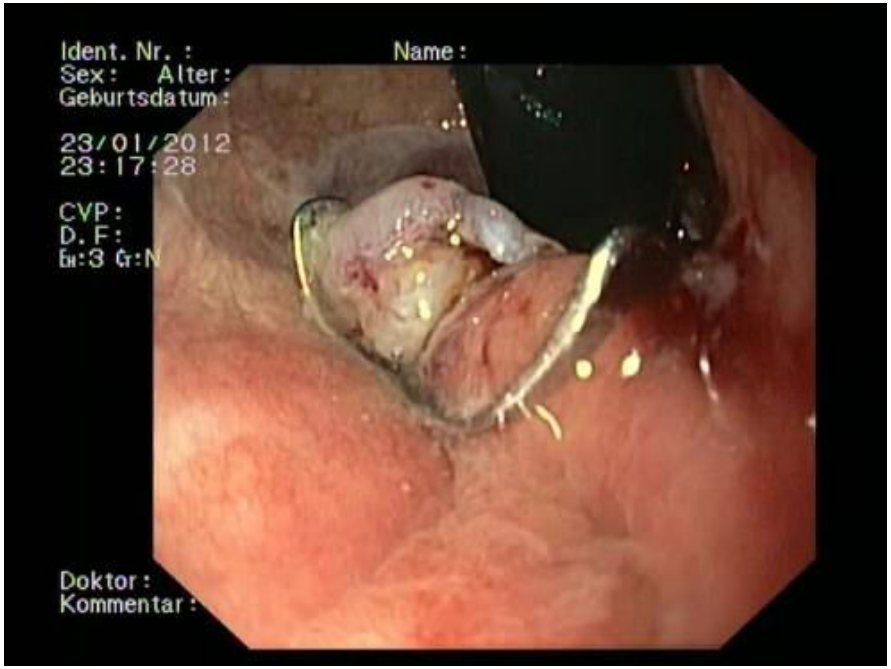
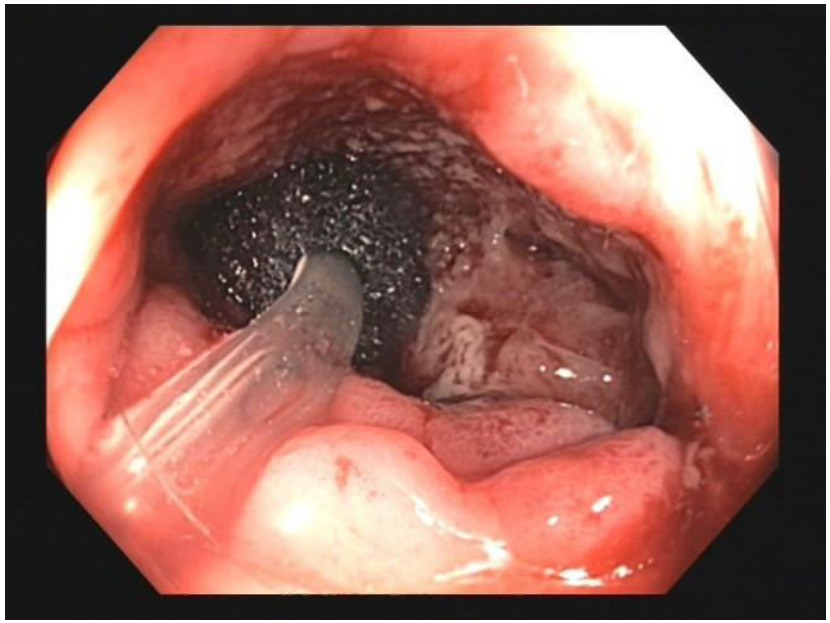
BEHANDLUNGSSTRATEGIE DER AI SUBKLINISCH

- (CT- gezielte) Punktion
- Fibrinkleber/ Flies
- OTSC - Clip



BEHANDLUNGSSTRATEGIE DER AI
KLINISCH MANIFEST + SUBAKUT

- Endo Sponge
- Deroofing d. Anastomose/Sinus

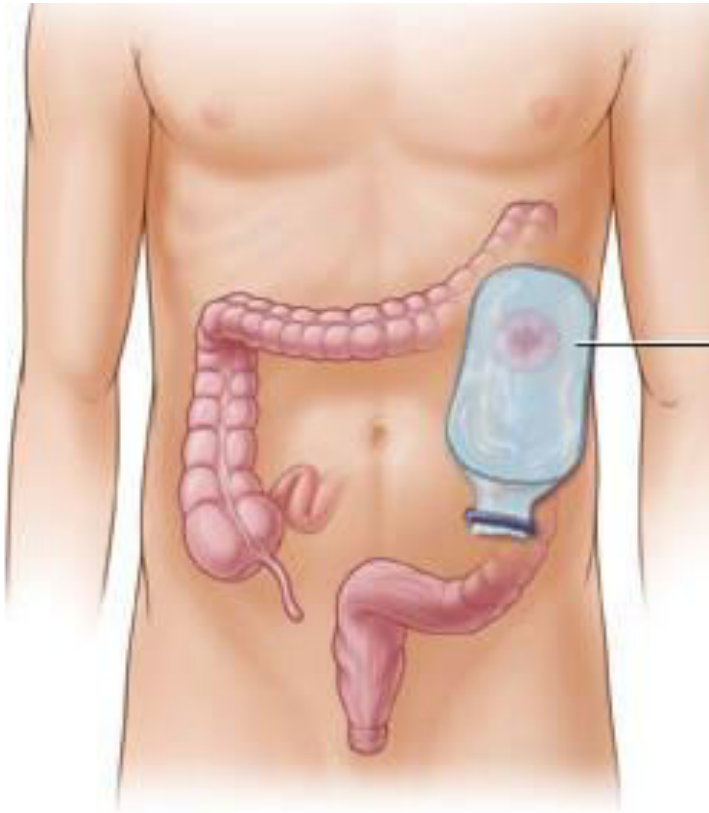


BEHANDLUNGSSTRATEGIE DER AI
KLINISCH MANIFEST + AKUT

- Operative Revision
  - Abdominelle Peritonitisbehandlung
- Fäkale Diversion
  - Loop- Ileostomie
  - Diversion (Hartmann)
- +/- Lokale Maßnahmen

BEHANDLUNGSSTRATEGIE DER AI CHRONISCH

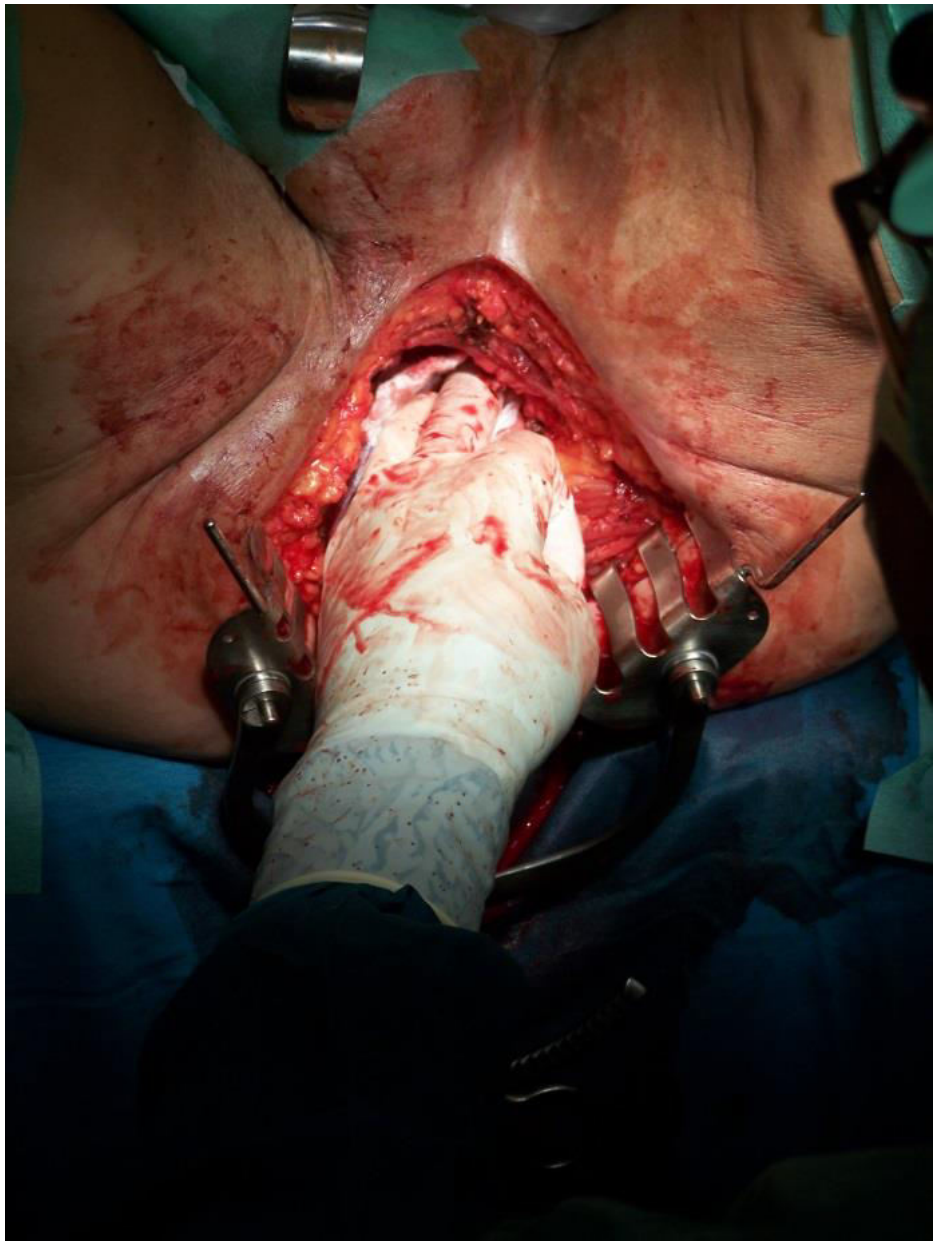
- Neorektumexcision
  - coloanale Anastomose
- Permanente Diversion
  - Stomaanlage mit Rektumblindverschluss
- APR - Abdominoperineale Extirpation

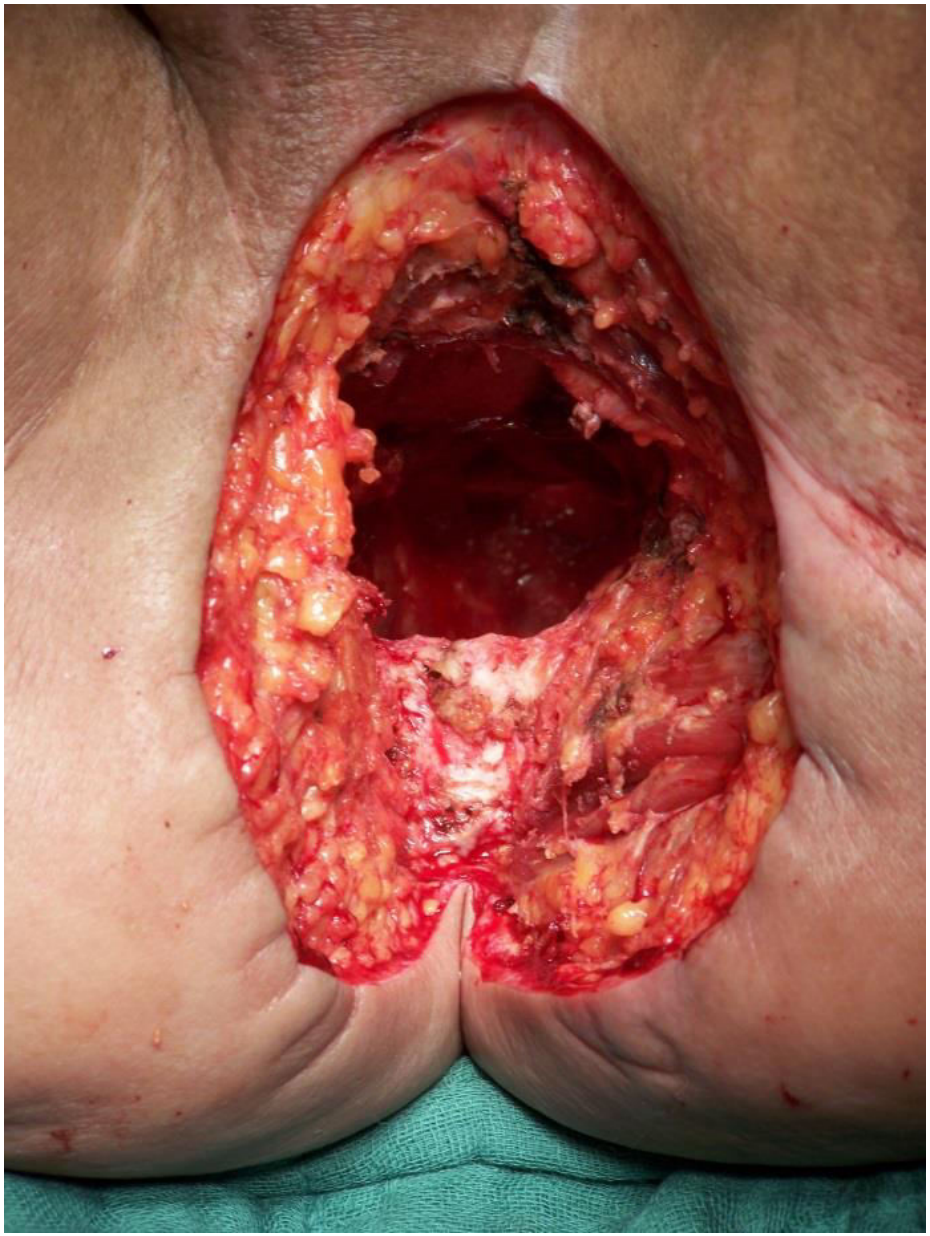


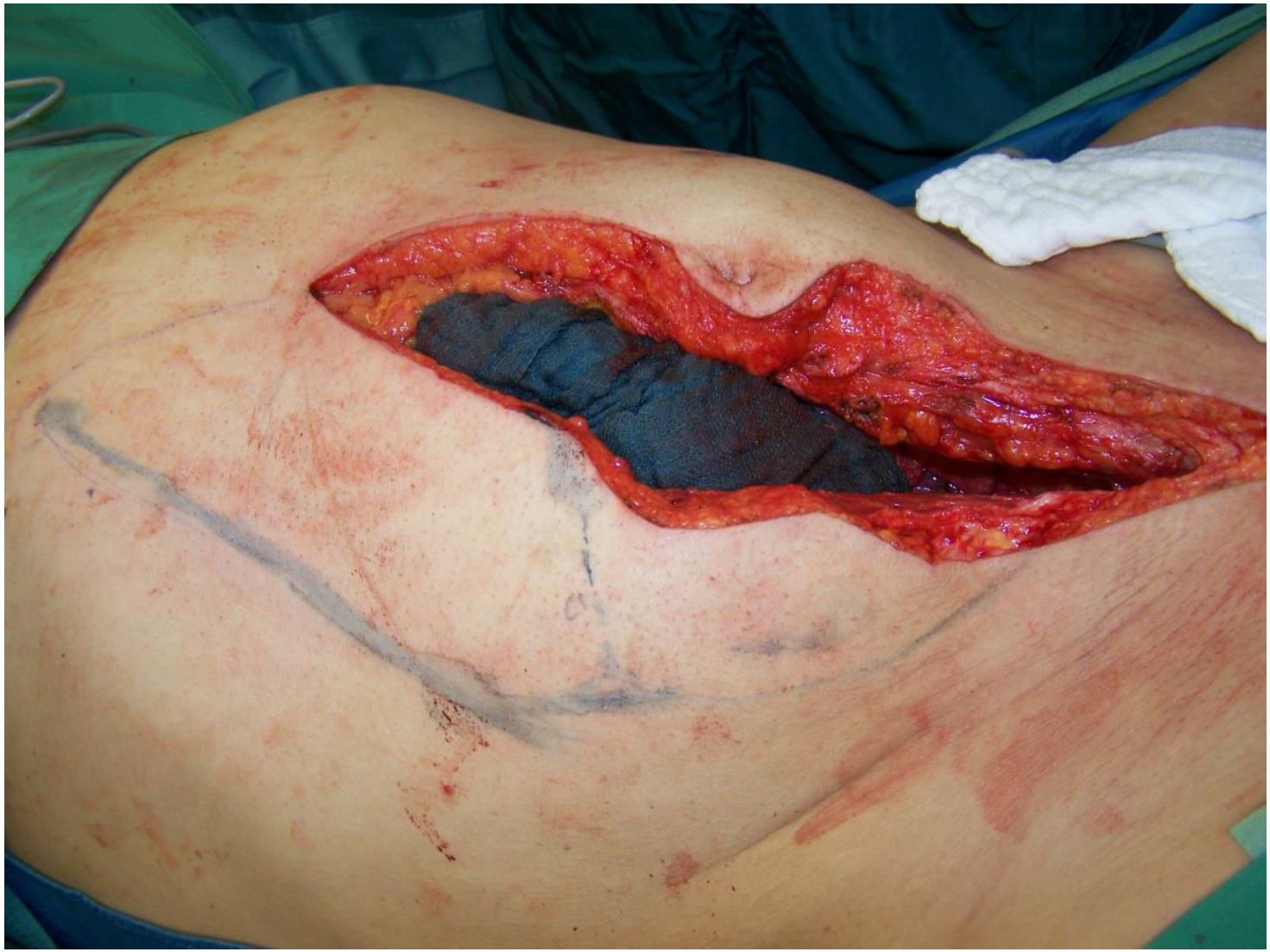
BEHANDLUNGSSTRATEGIE DER AI CHRONISCH

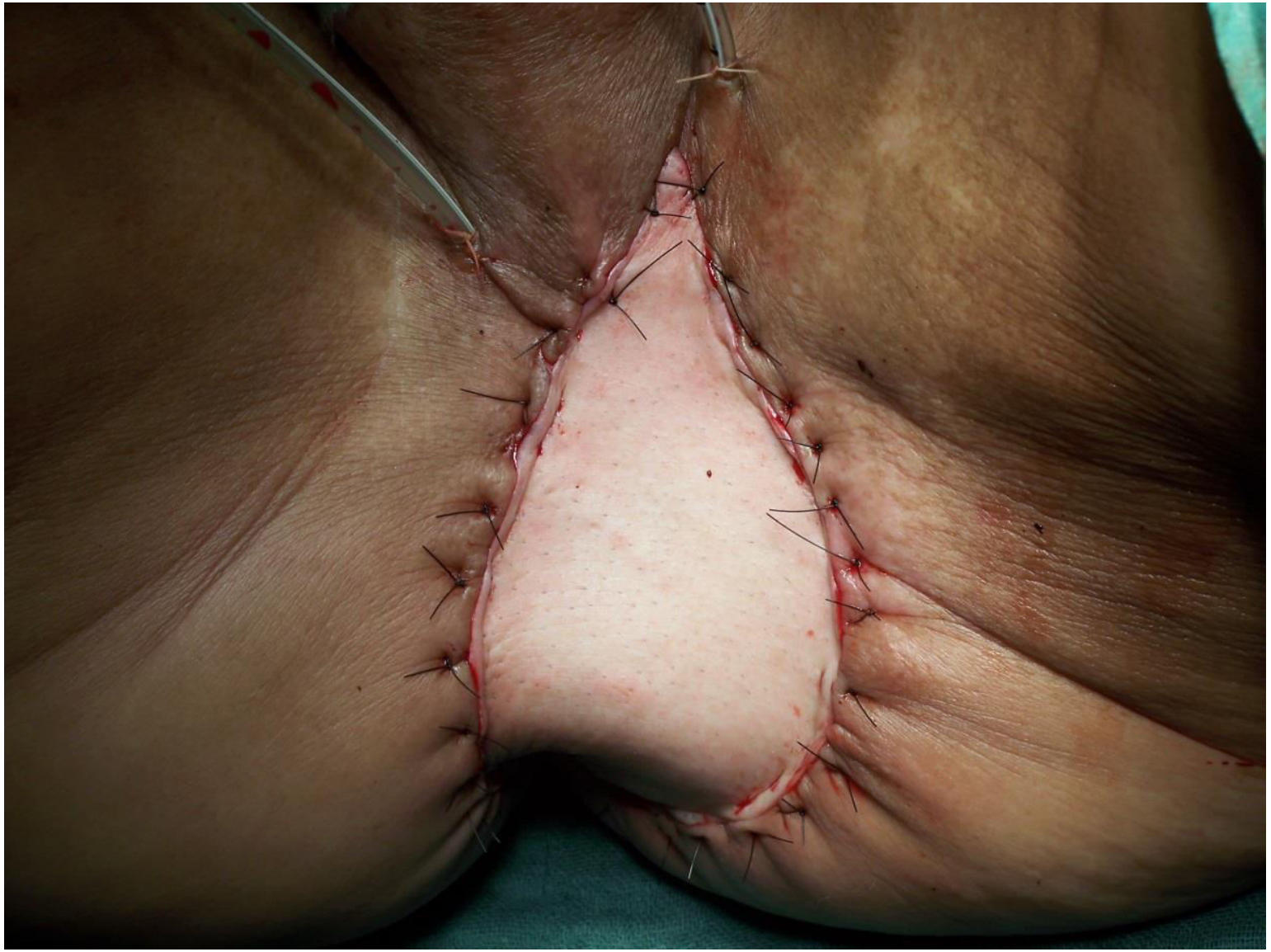
- Lokales pelvines V.A.C.®

- Plastisch rekonstruktive Verfahren
  - Glutealer Perforatorlappen
  - TRAM / VRAM Flap
  - Grazilislappen









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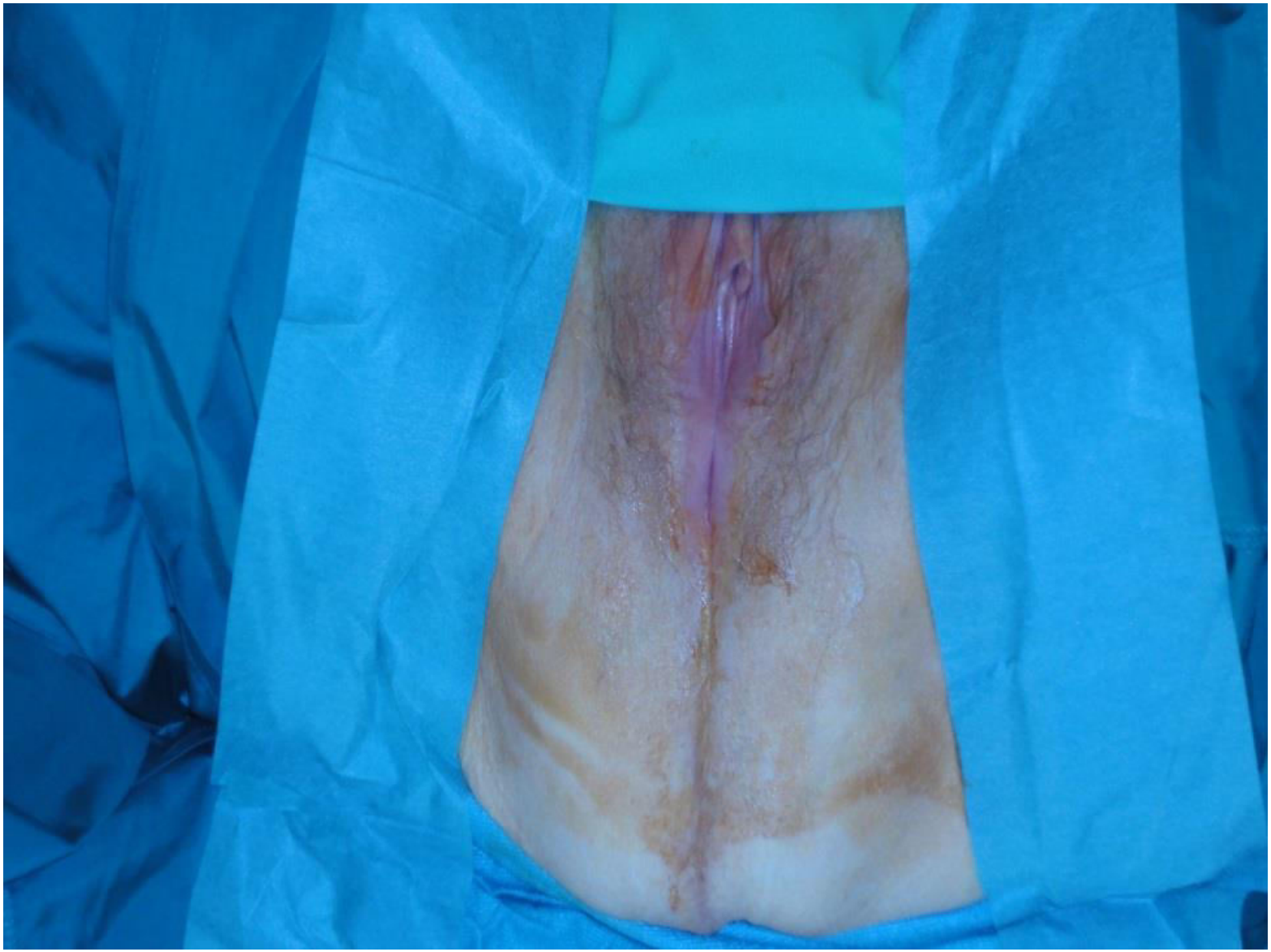
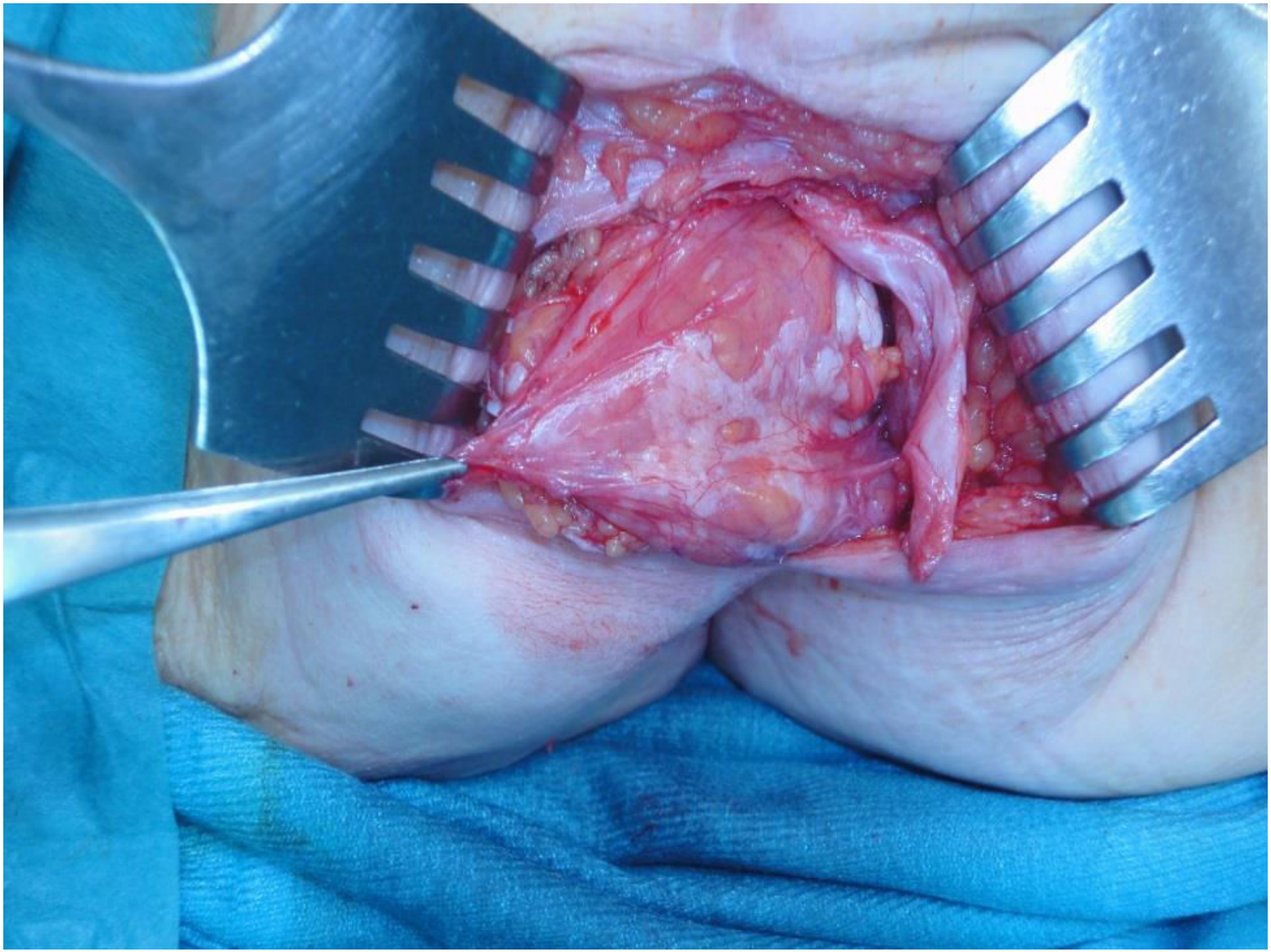
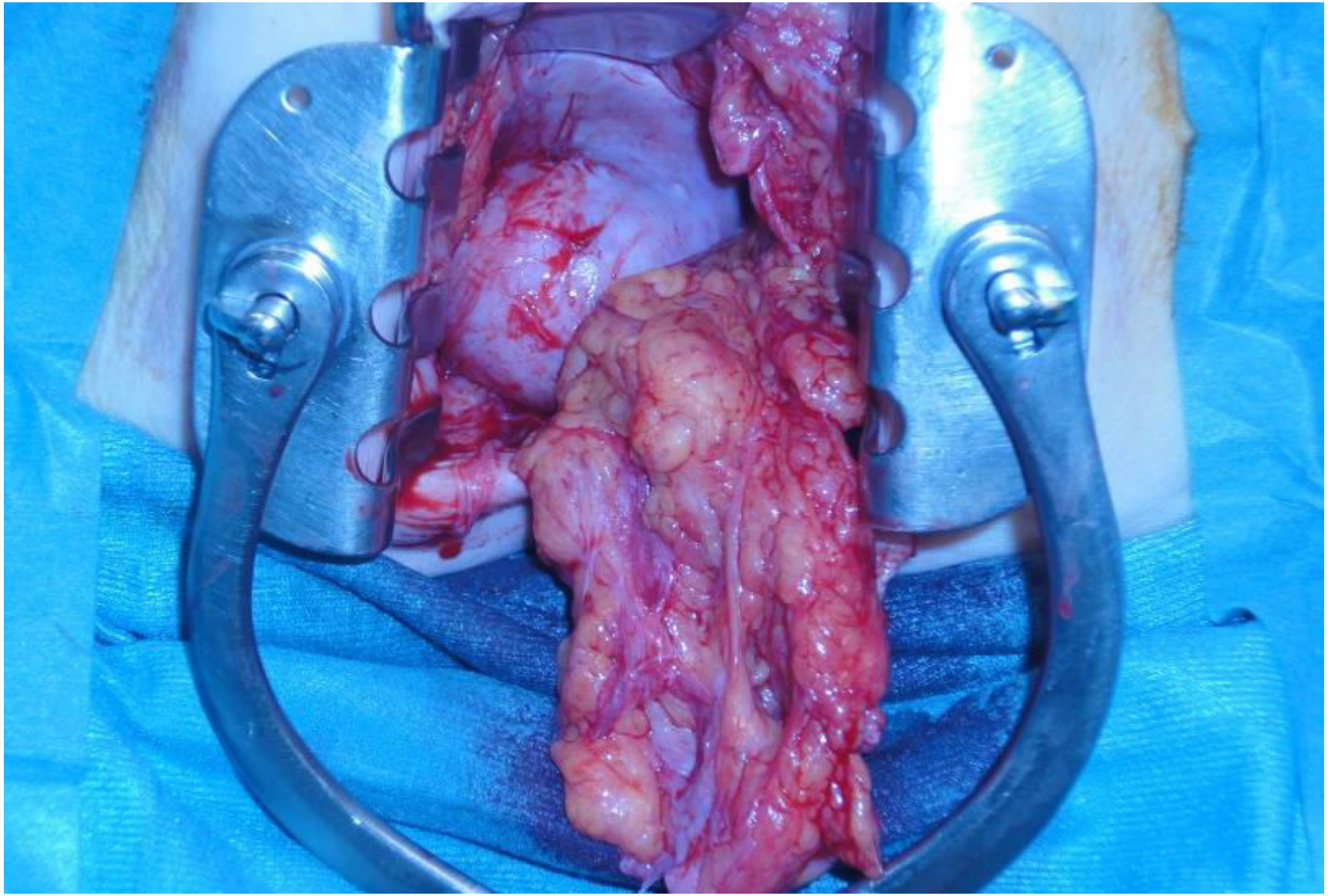
PERINEALE HERNIATION

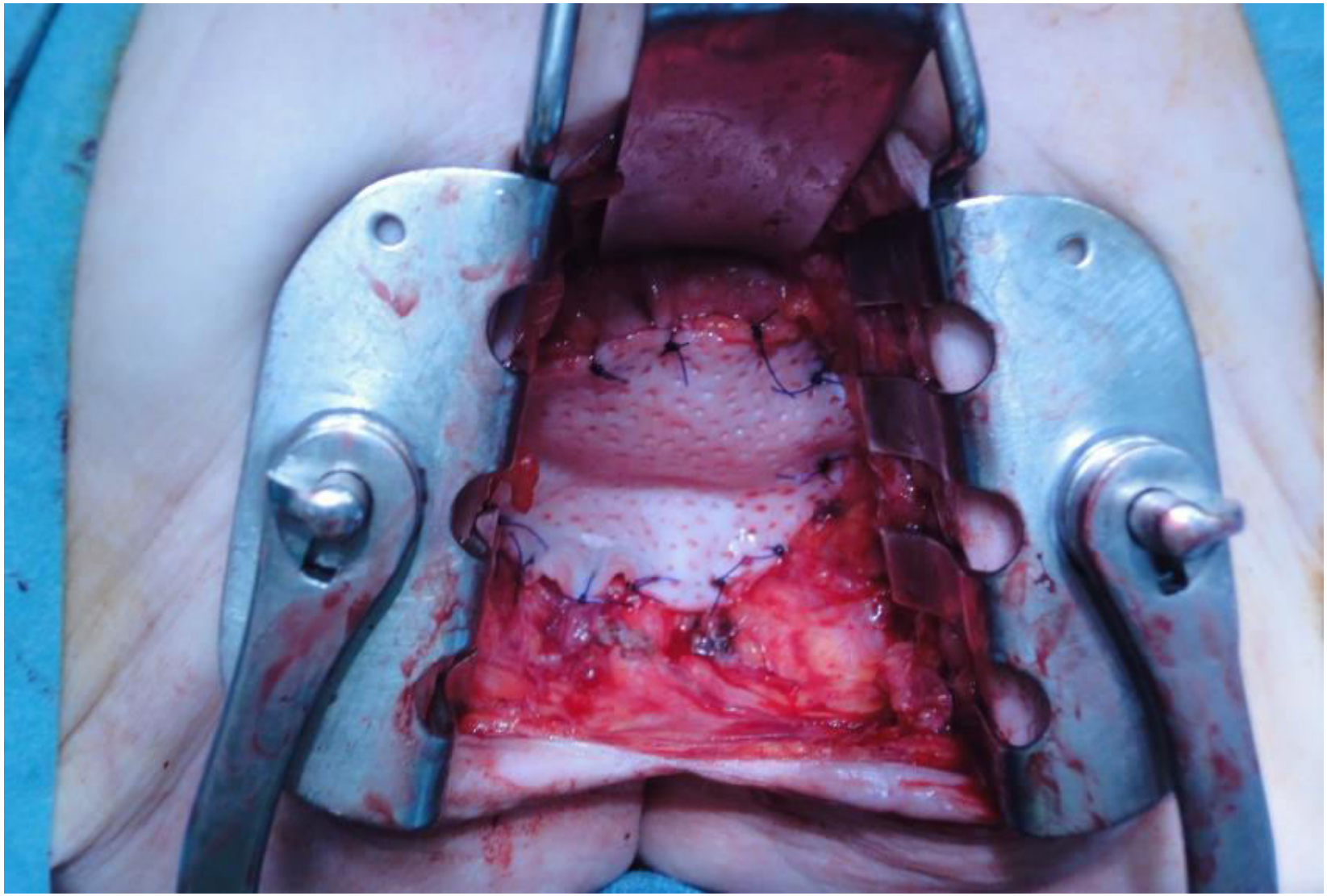
- sehr seltene Komplikation nach APR

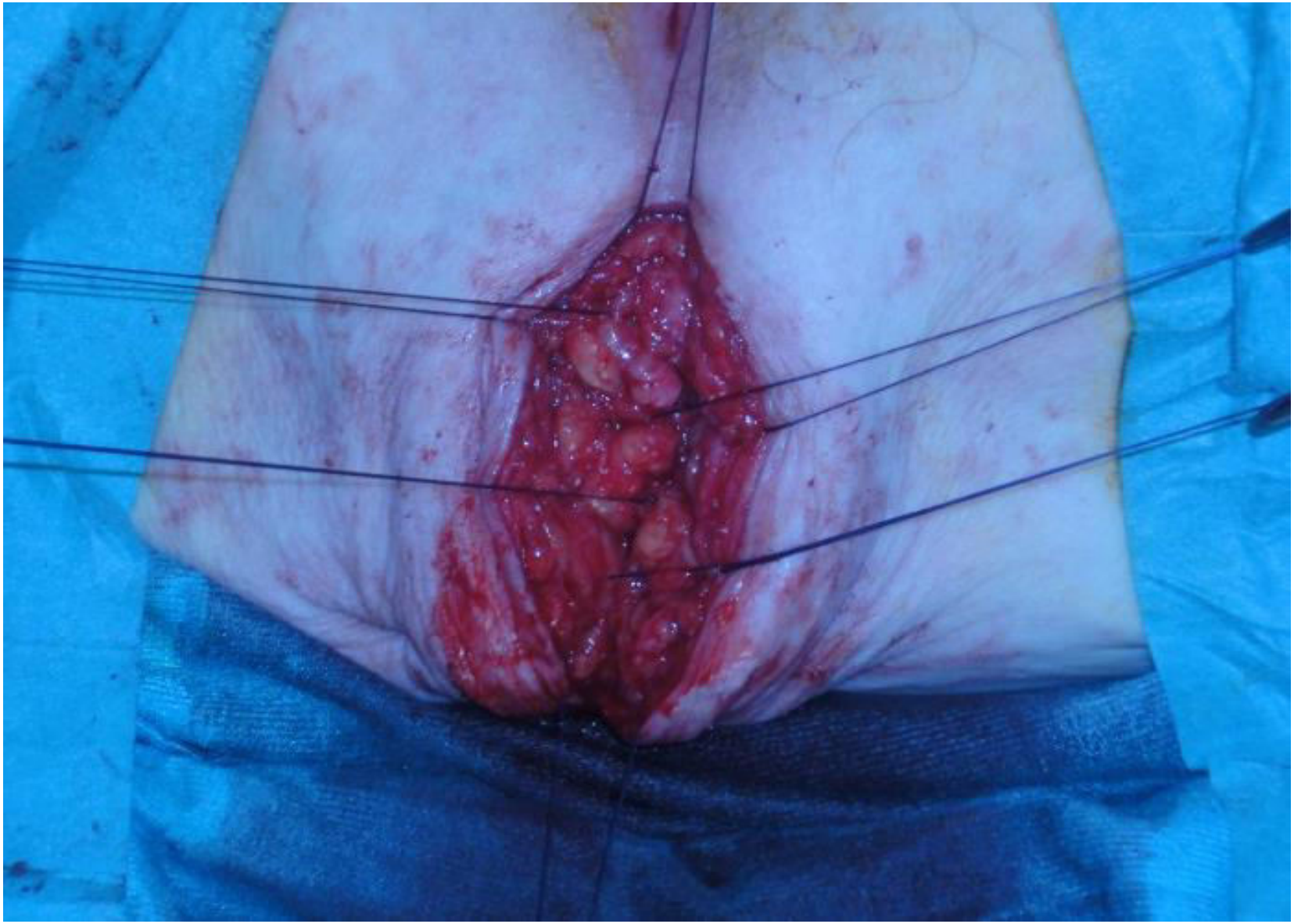
- Erkennen
  - Schmerzen
  - perineale Herniation
- Therapie
  - operative Sanierung – Mesh-Rekonstruktion
  - Hohe Rezidivrate

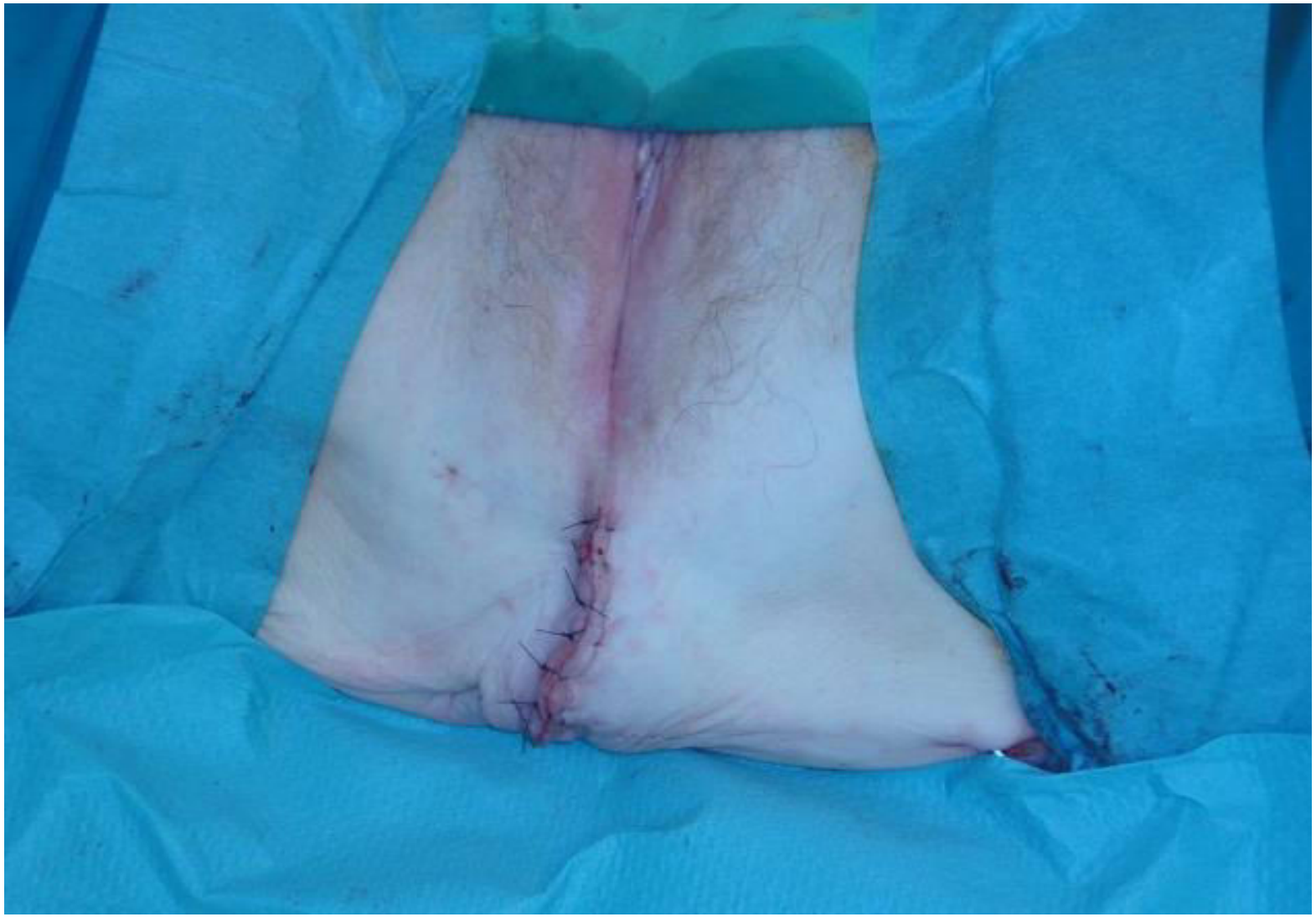






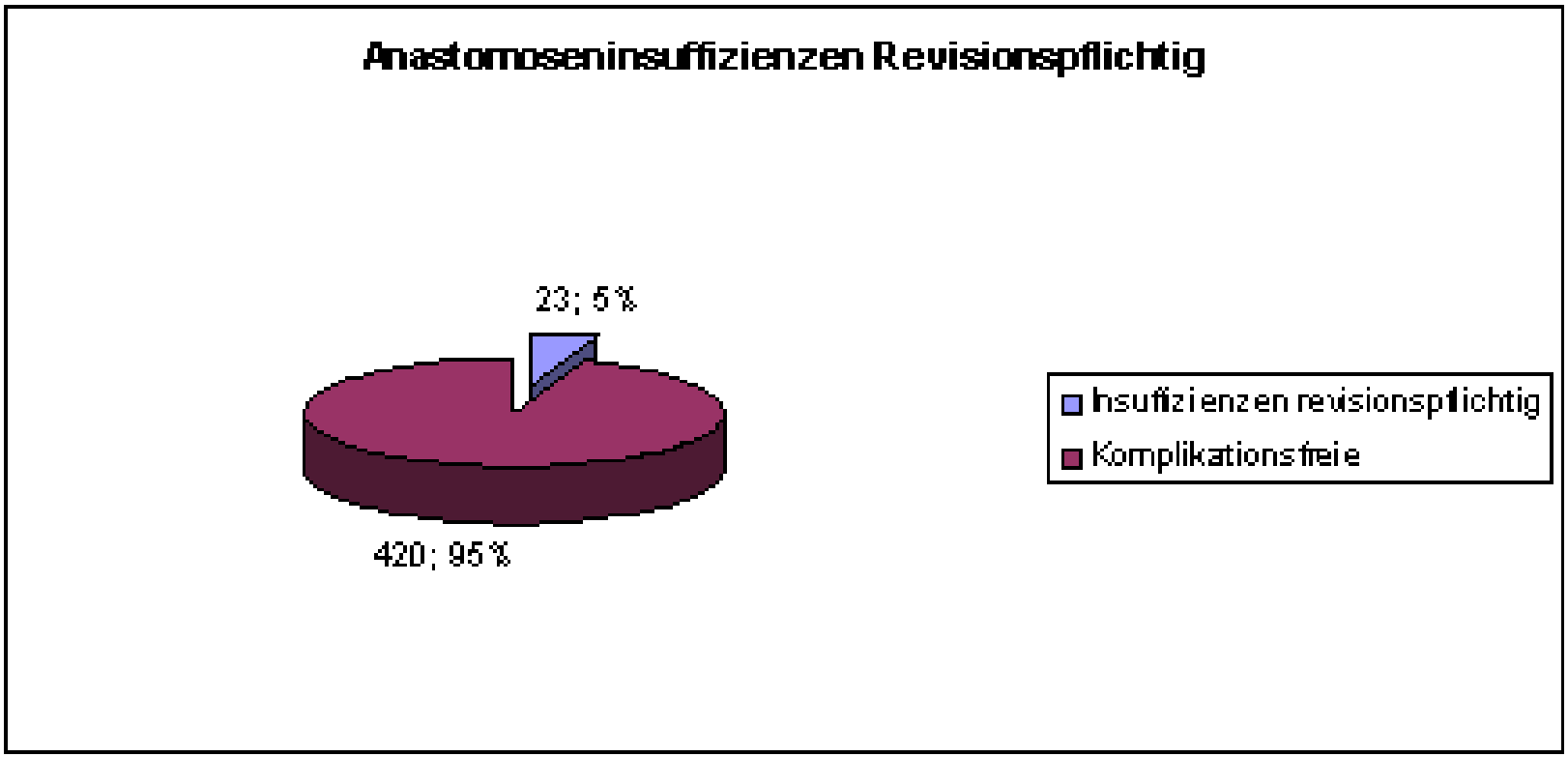






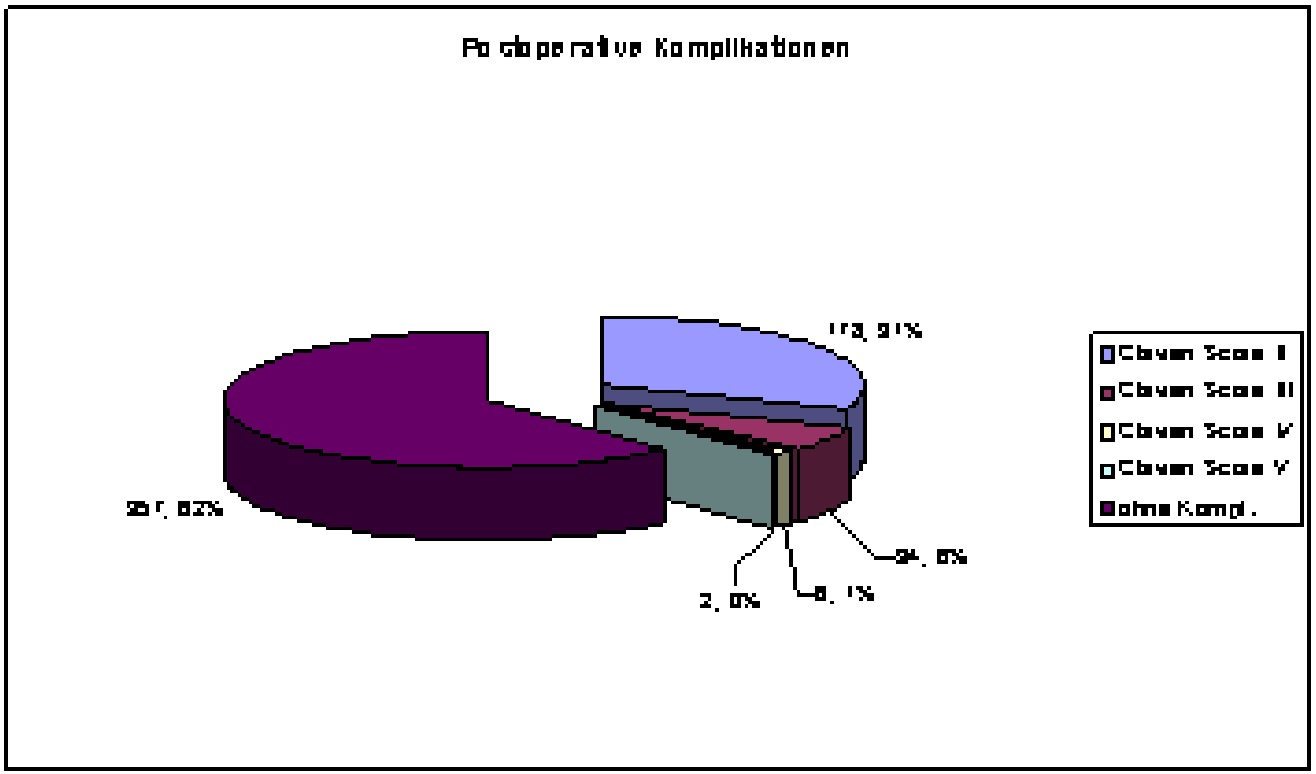
TAR+TME DATEN 2000-2010 AI

Anastomoseninsuffizienzen



TAR+TME DATEN 2000-2010 KO

Postoperative Komplikationen



BARMHERZIGE BRÜDER
KRANKENHAUS GRAZ

EIGENE DATEN 01/2010 - 12/2014

- **1221 EINGRIFFE AM COLON**
  - davon 682 Malignome

- **403 EINGRIFFE AM REKTUM**
  - 228 Patienten mit TAR + TME bei n. recti (n=228)
  - 53 Patienten mit APR bei n. recti (n= 53)

FALLSERIE

- **Anastomoseninsuffizienz und chronisch pelvine Sepsis**
  - **11 Patienten (n=11, m=9, f=2)**
    - 2 Patienten **post IAAP und Pouchfistel**
    - 4 Patienten **AI post TAR+TME**
    - 3 Patienten mit langbestehender **chron. Pelvine Sepsis**, Anastomosenfistel >5 Jahre
    - 2 Patientinnen nach **Lap. Sigma mit AI, Stenose, chron. Entzündung**

FALLSERIE

n=11 (9m/2f)	Diagnose	Therapie	Folgetherapie
2 (18,2%)	Pouchfistel post IAAP	OTSC, frustran	Pouchexcision, endständige Ileostomie
4 (36,4%)	AI post TAR+TME	Endosponge, Neorectumexcision, Coloanaler J-Pouch	2 Patienten mit APR und endständ. Descendostomie
3	Chron. Pelvine Sepsis, Anastomosenfistel >5 Jahre	APR, (Neorektumstumpf) Stomatransposition + Netz, „Pelvic“ VAC perineal	Perineale Nachresektion und Lappenplastik
2	Lap. Sigma mit AI, Stenose, chron. Entzündung	Anastomosen - Nachresektion und colosupraanaler J- Pouch	

FALL 1

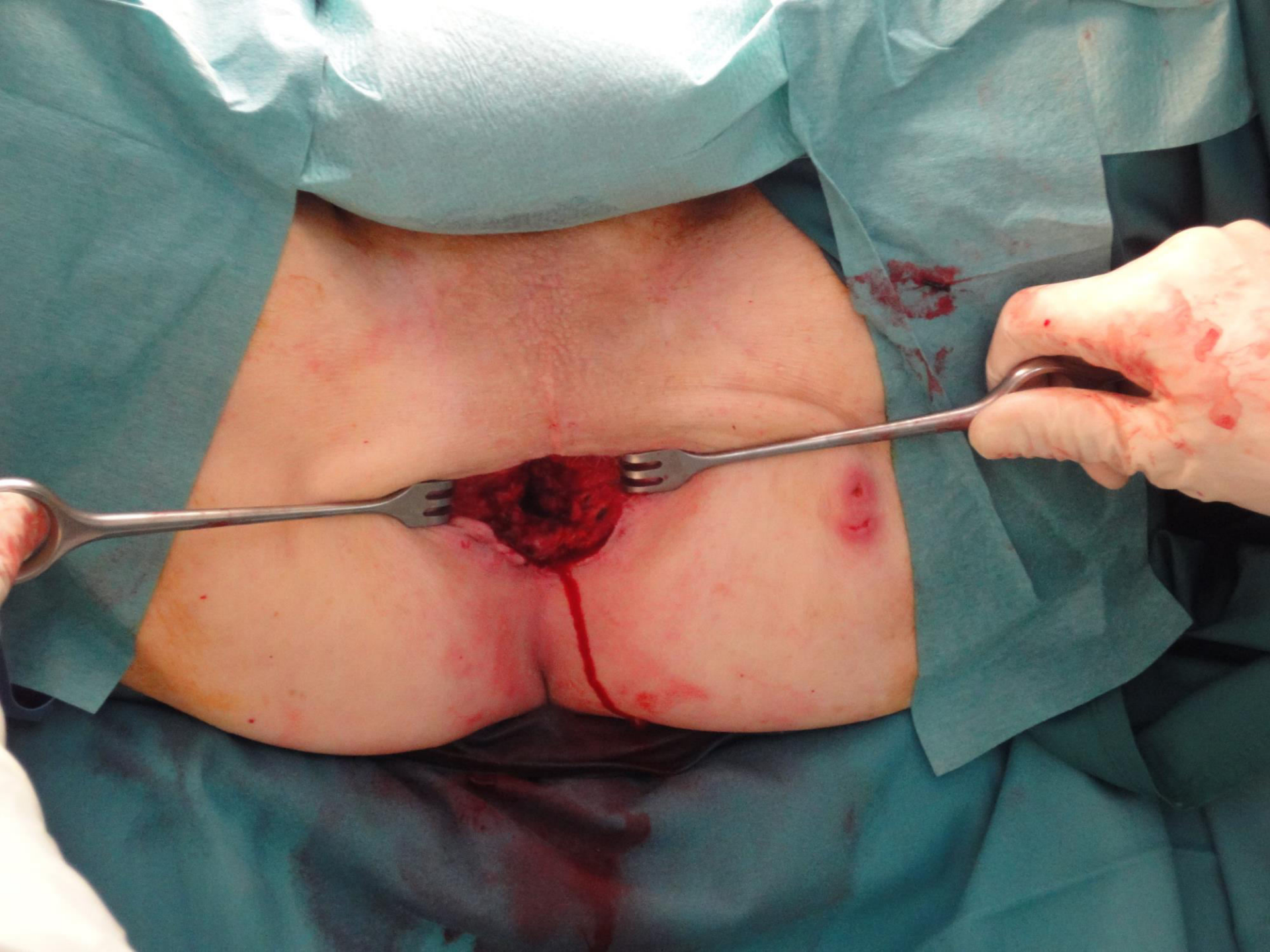
- **J.K. 77a / m**
- **Rektumkarzinom, mittl. Drittel**, ypT-2, G-3, N-0
- PCT / RTX
- **TAR+TME; coloanaler J-Pouch Anastomose + Schutzileostomie** 5/09
- ND:
  - Malignes Melanom Re. Schulter 2/2002
  - AML (Ed 04/2004) inzwischen chron. Verlauf

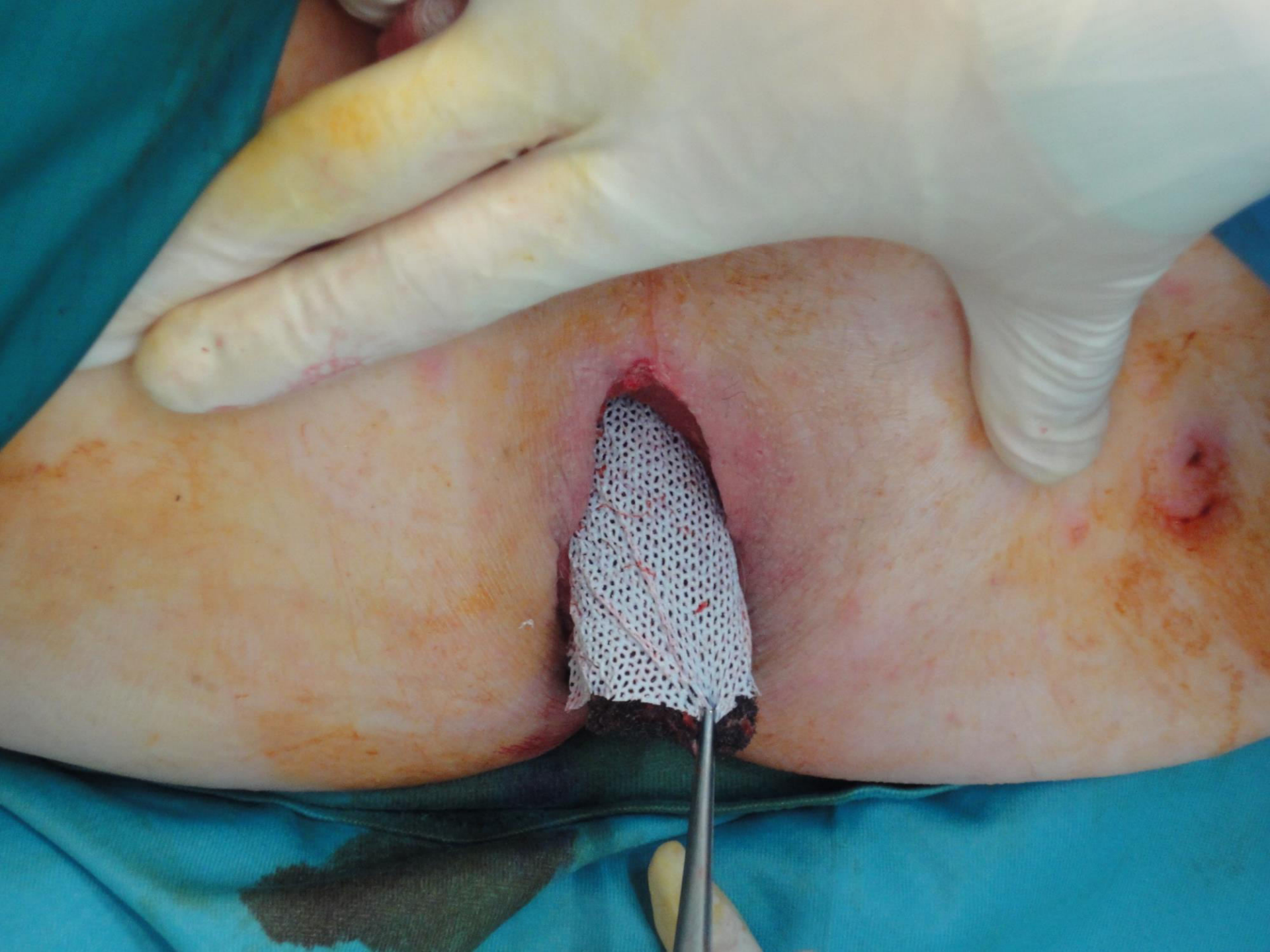
FALL 1

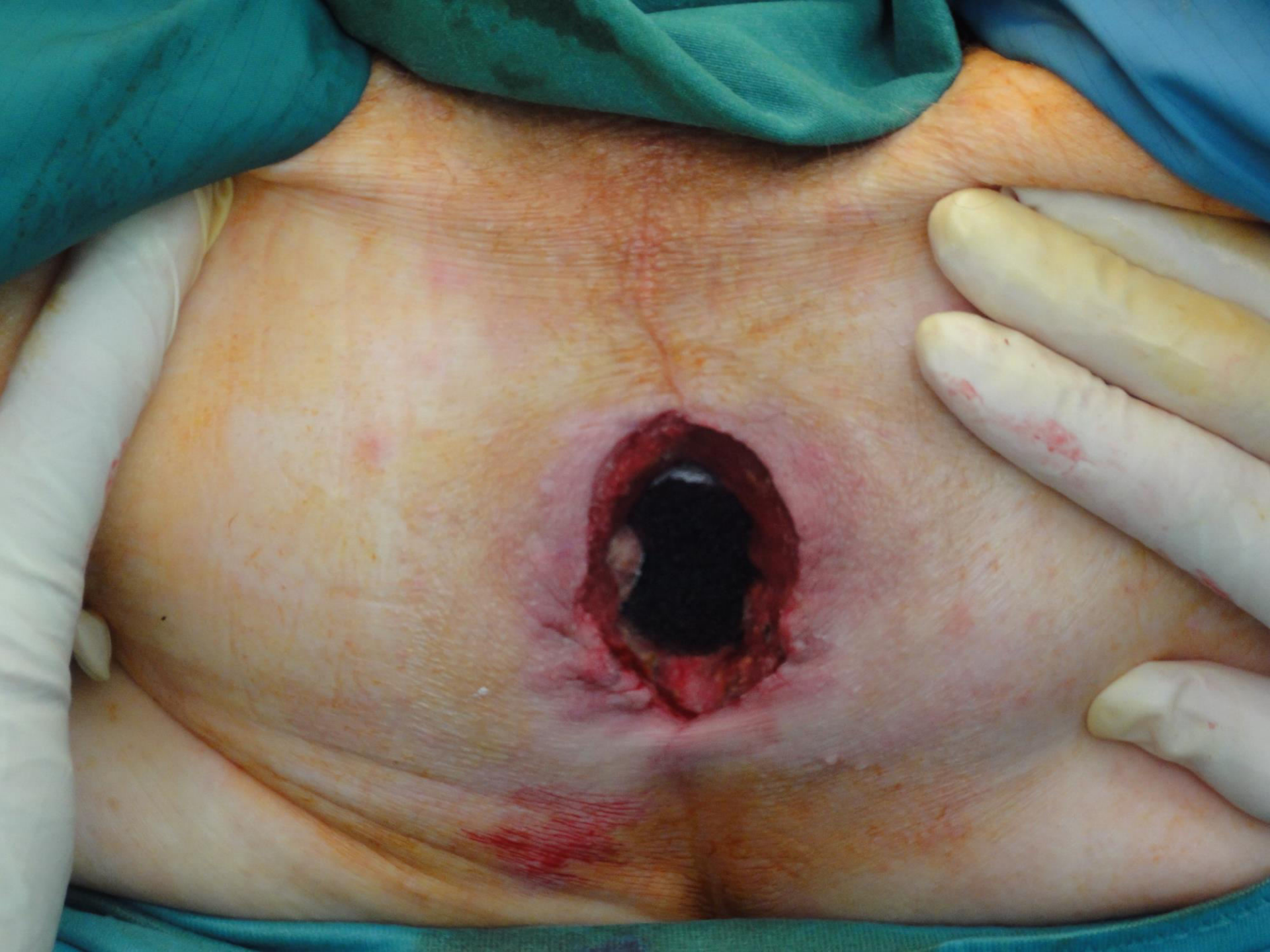
- **Anastomoseninsuffizienz am 6.postop. Tag (5/09)**
  - EndoSponge Anlage
  - Präsacrales Hämatom, sekundär infiziert
  - Mehrfach CT- gezielte Abszesspunktionen
  - Anastomosenstenose
  - Zunehmende Schmerzen!

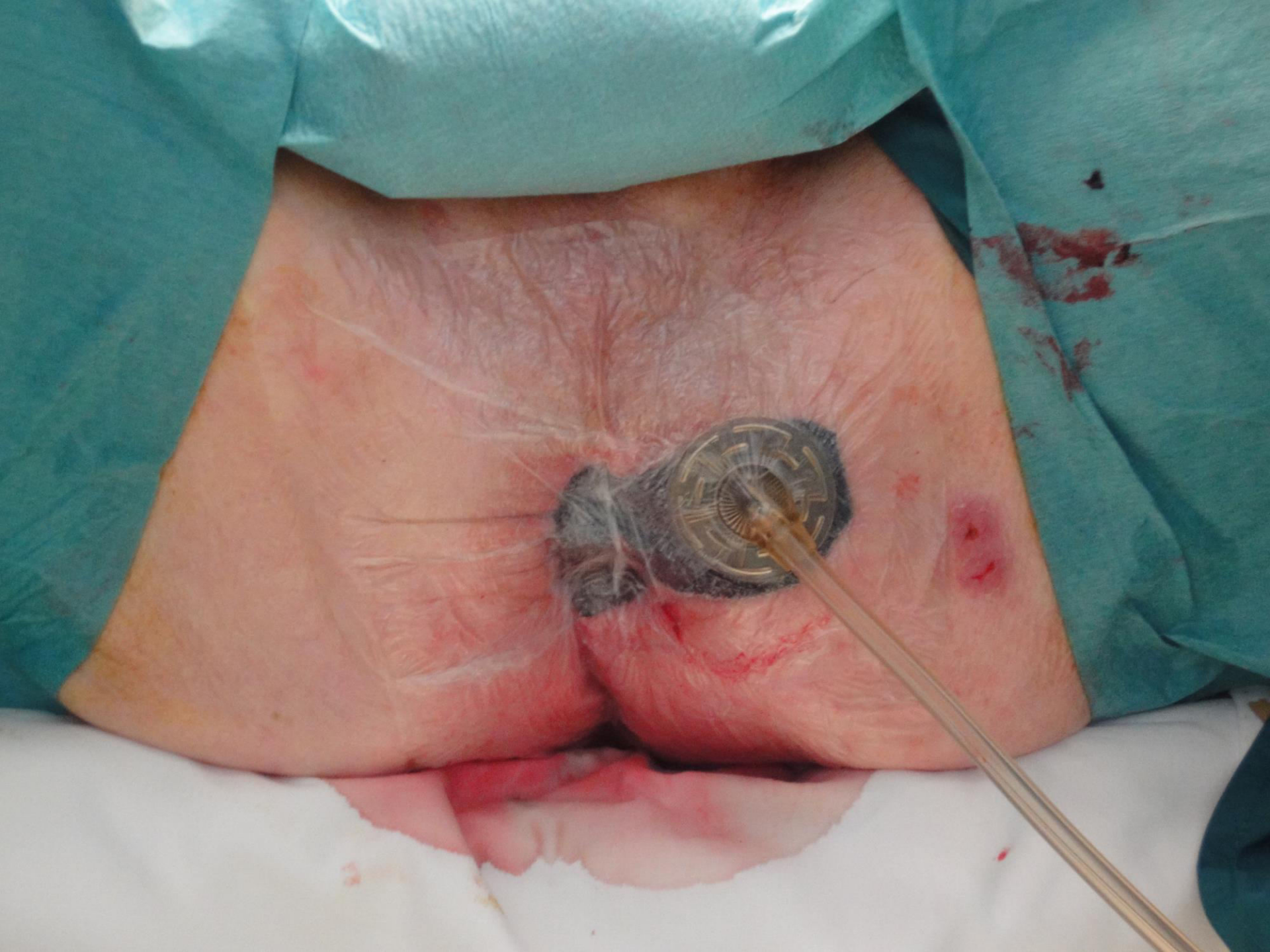
FALL 1

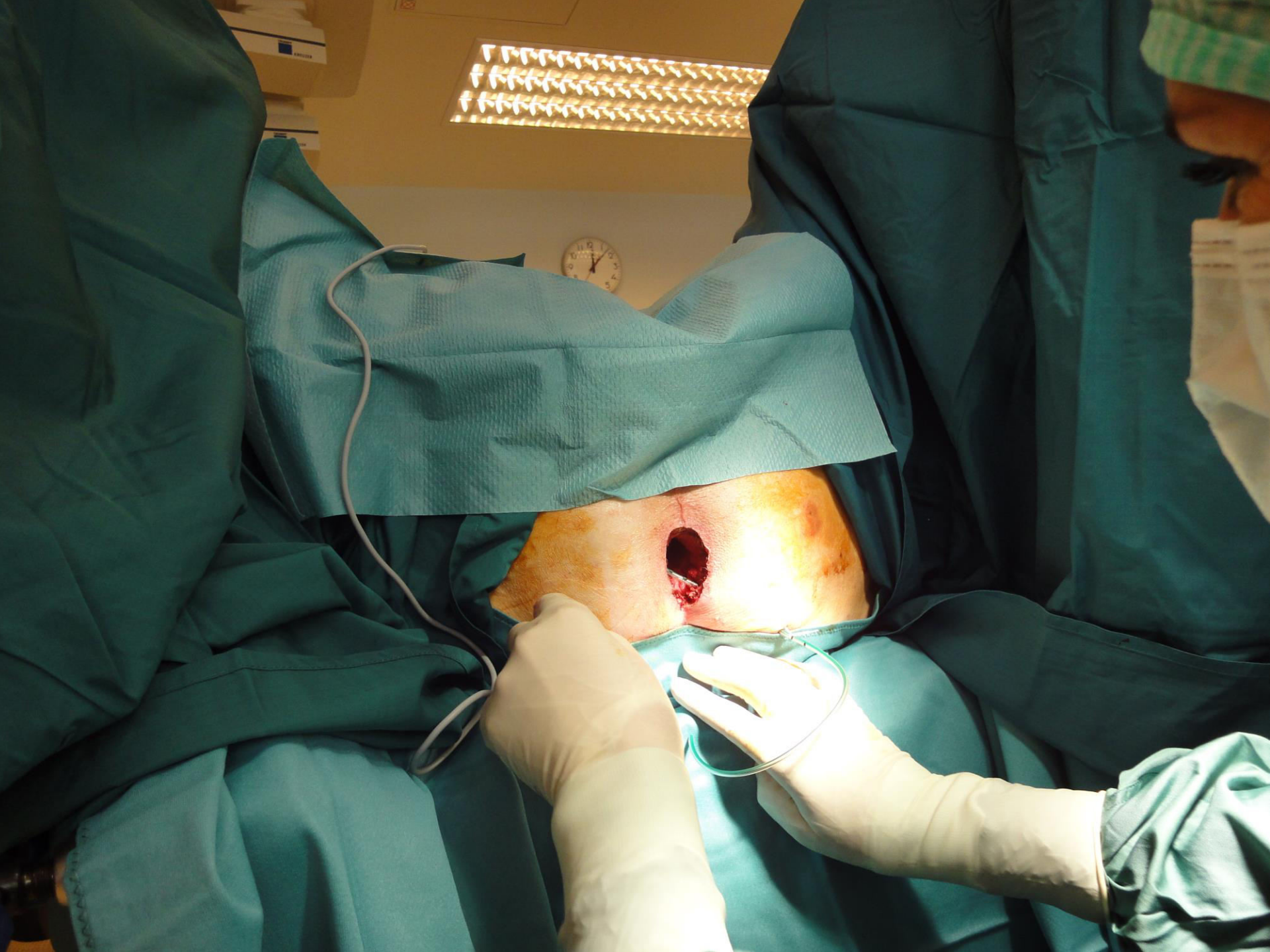
- **Neorektumextirpation** + endständige Descendostomie, Ileostomarückverlagerung **01/10**
- **Hämatomausräumung**
- **„Pelvic“- V.A.C.® Verband** Für 19 Tage
  - 5 X Wechsel
  - Abstriche Keimfrei
- **Sekundärer Perinealverschluss**
- **Kontrolle 3/11**

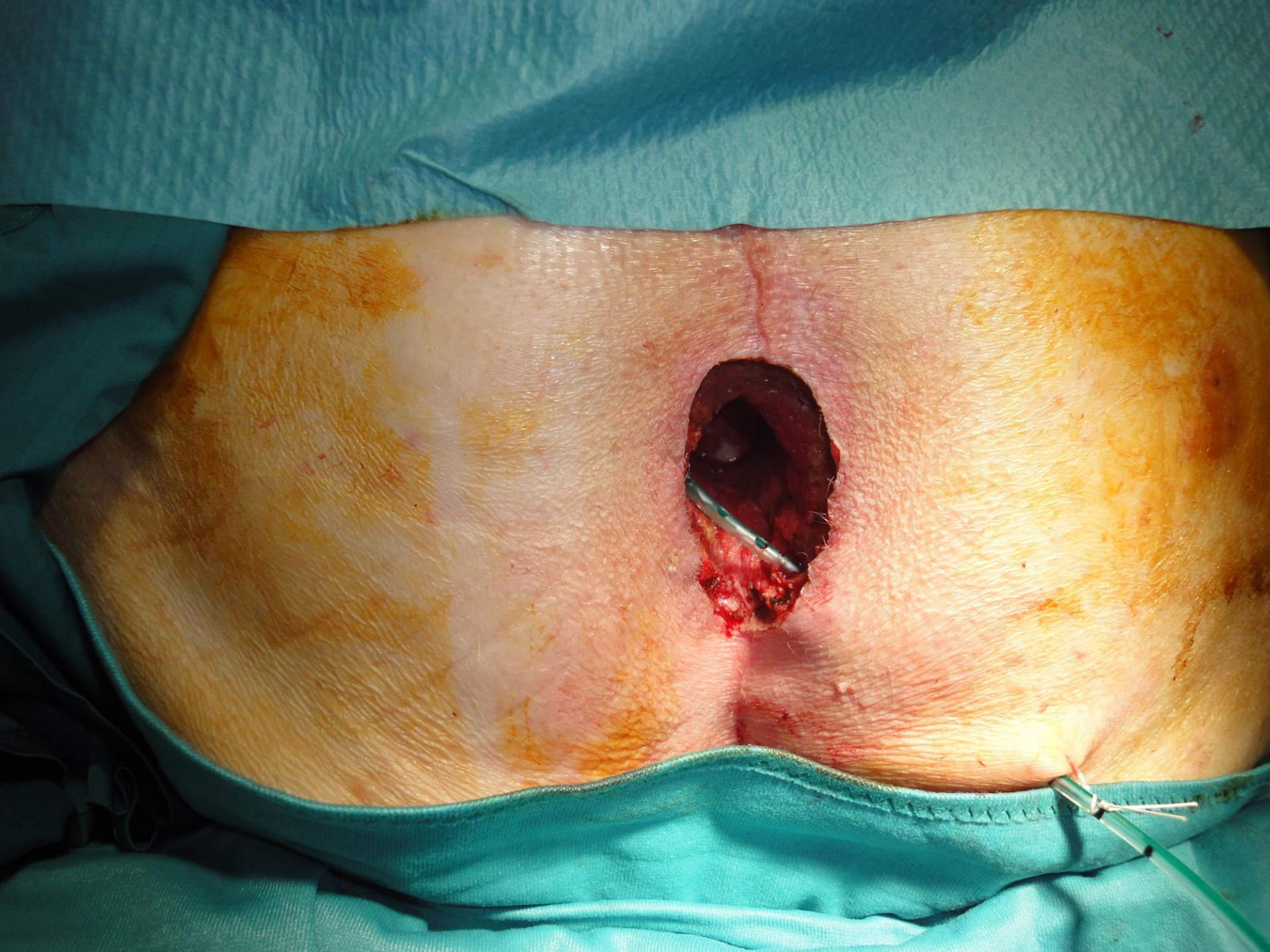


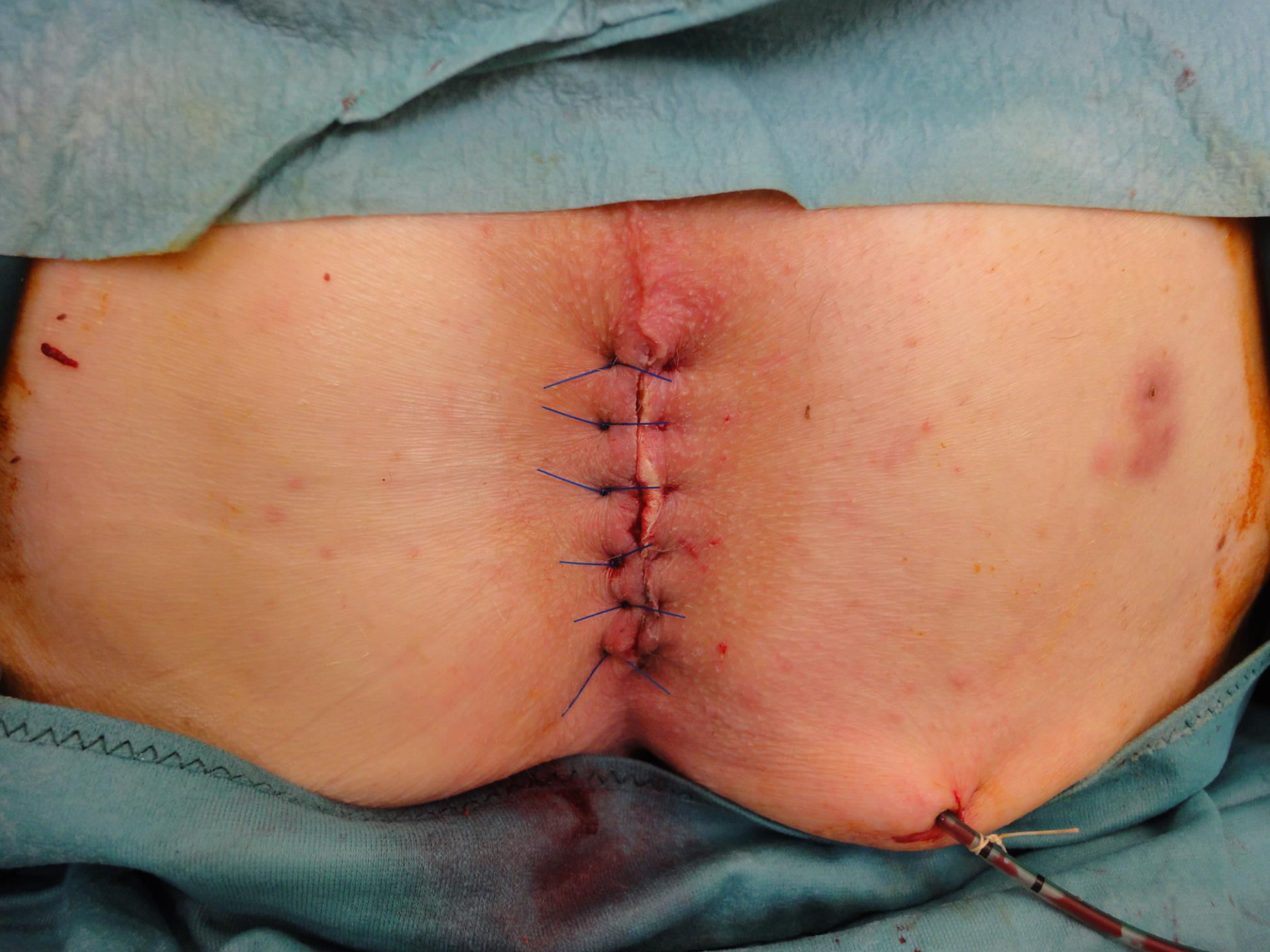












FALL 2

- **S.K. 69a / M**
- **Rektumkarzinom** pT-3, G-2, N-0 (0/17)
- **TAR, E/E - Anastomose** 1996 E.M.
- Anastomoseninsuffizienz+Abszess
- **APR - Neorektumextirpation** + endst. Descendostomie 12/2007

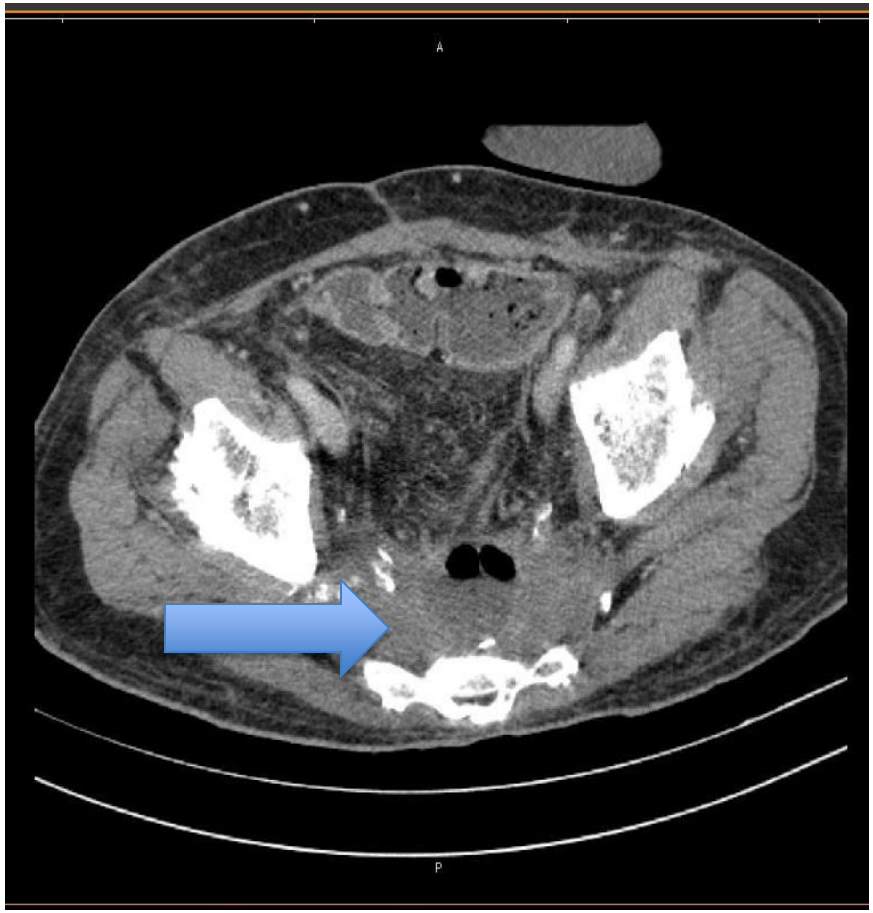
FALL 2

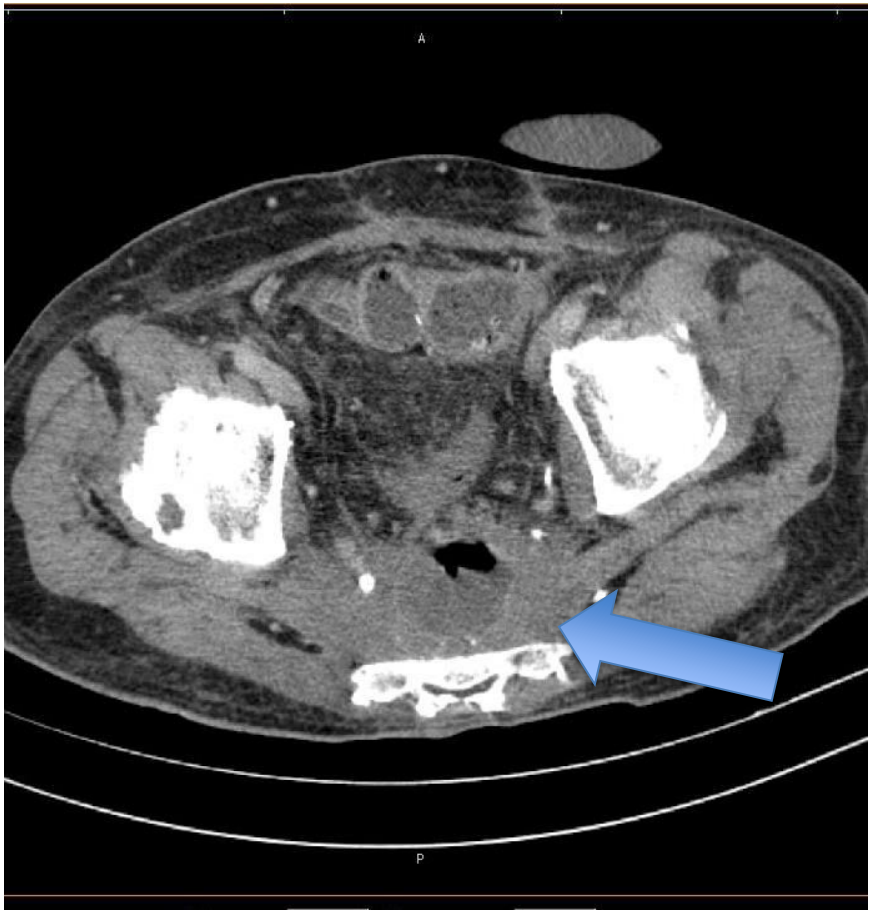
- **Chronisch perineale Fistel und rezidivierender Abszess + Parastomalhernie:**
  - Mehrfach CT- gezielte Abszesspunktionen
  - Sekretion
  - zunehmende Beschwerden der Stomahernie

FALL 2

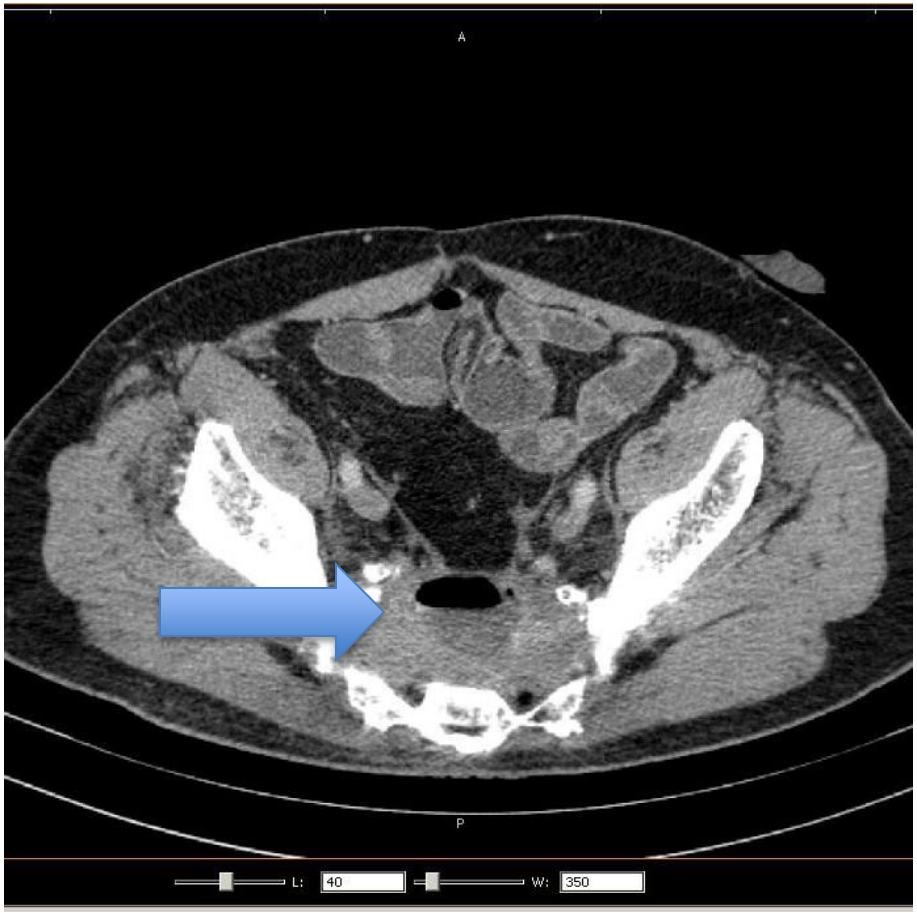
- **Stomarevision + Neuanlage** + IPOM Netz
- **Perineale Fistelexcision 3/10**
- **„Pelvic“- V.A.C.® Verband** Für 16 Tage
  - 4 x Wechsel
  - Abstriche keimfrei
- **Sekundärer Perinealverschluss**
- Kontrolle 7/11: **Neuerlicher Sinus**
- **Glutealer Perforatorlappen** 2/12

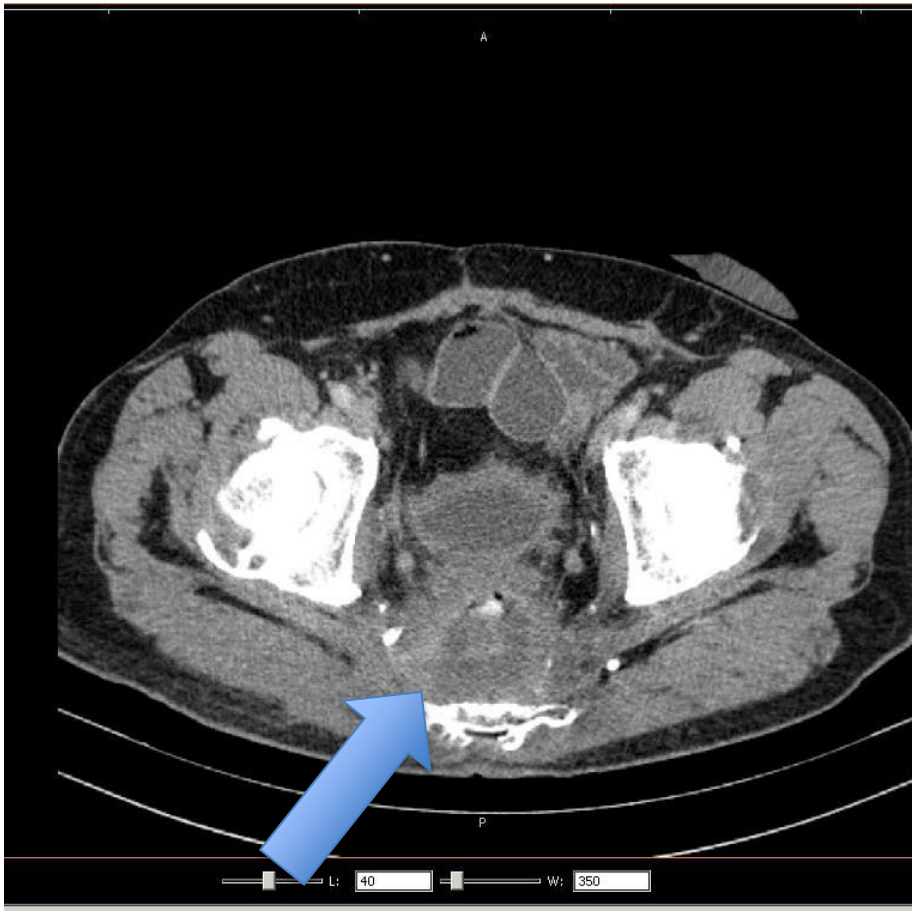
CT 05/2008

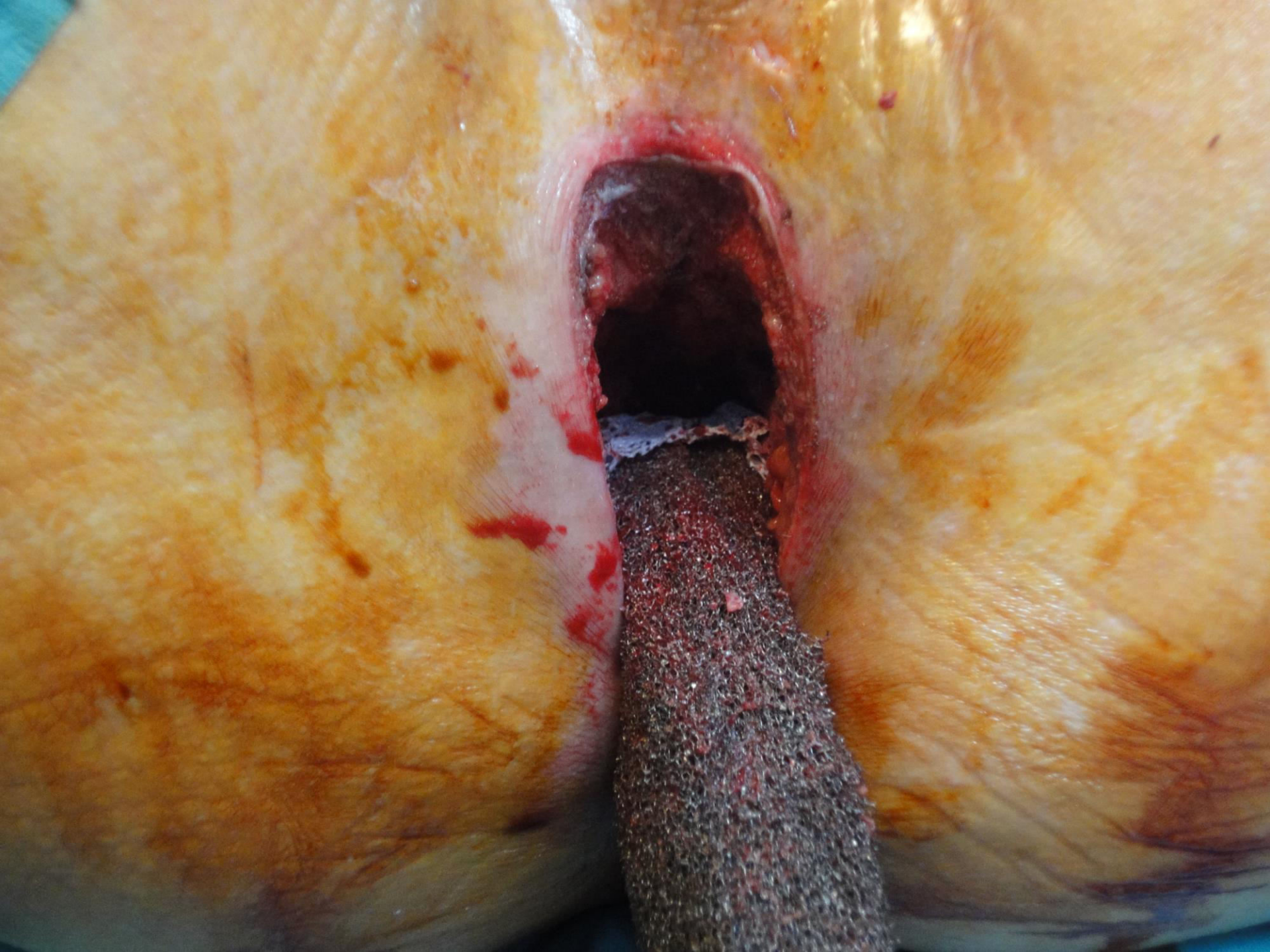


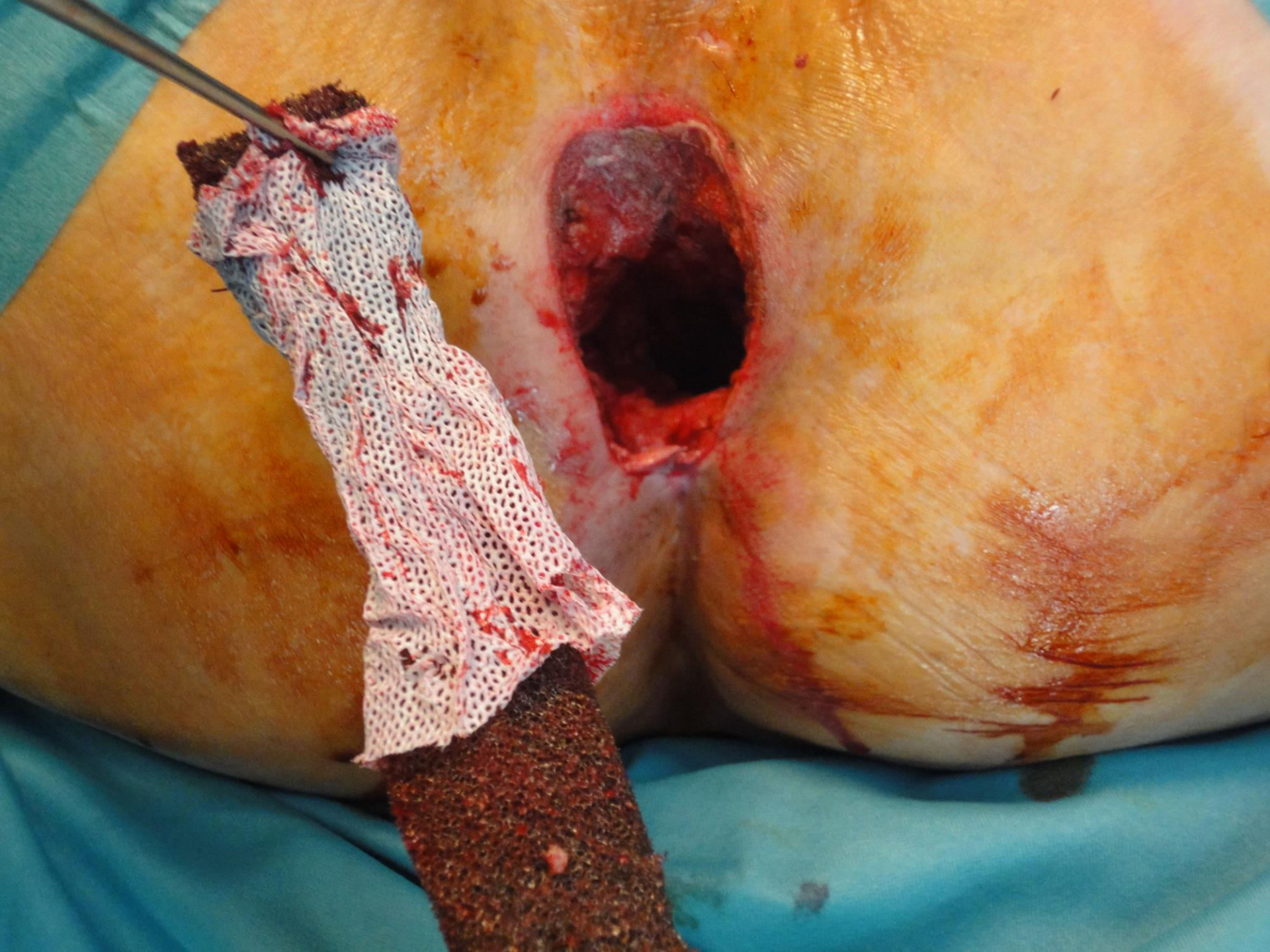


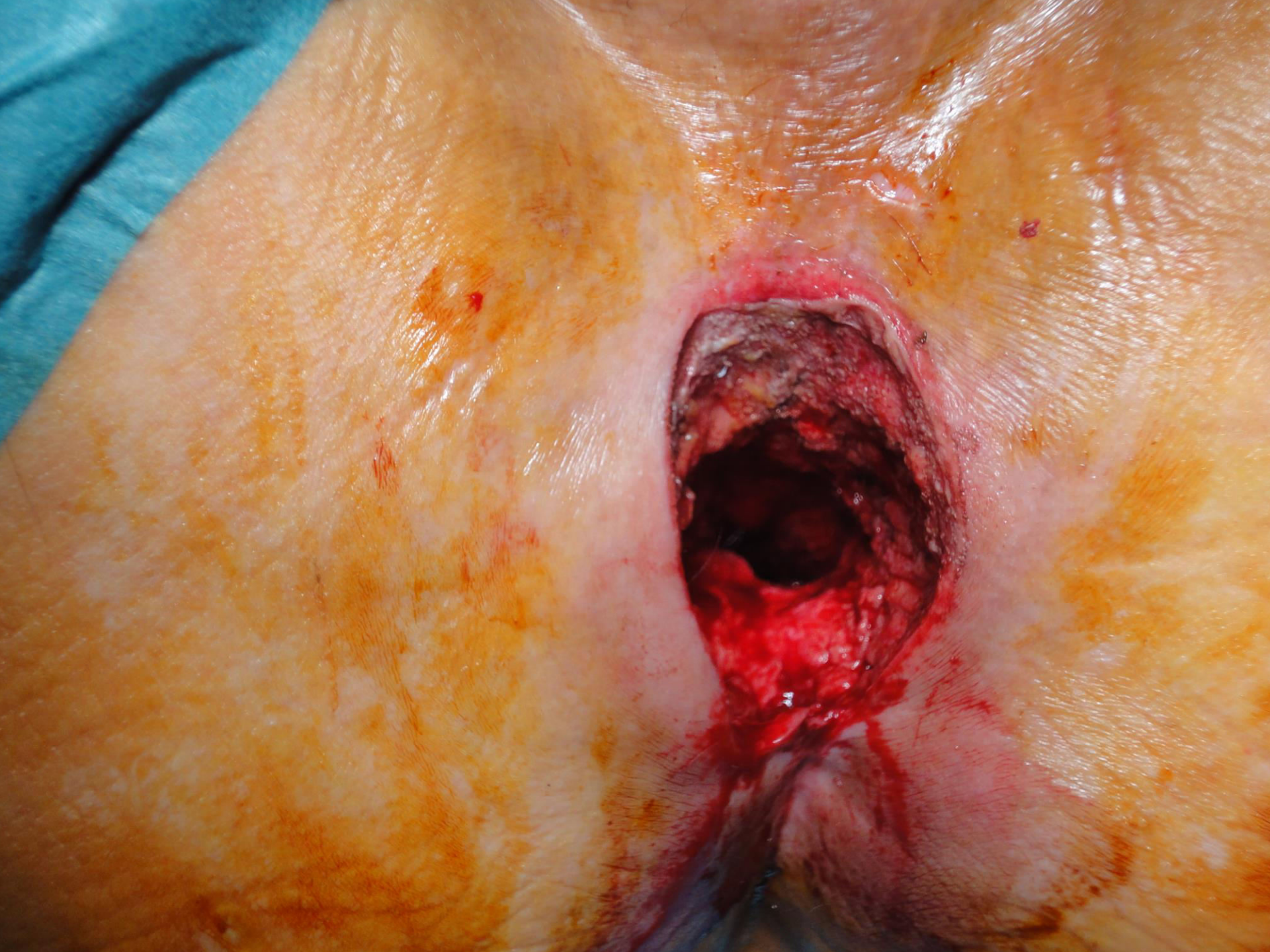
CT 07/2011

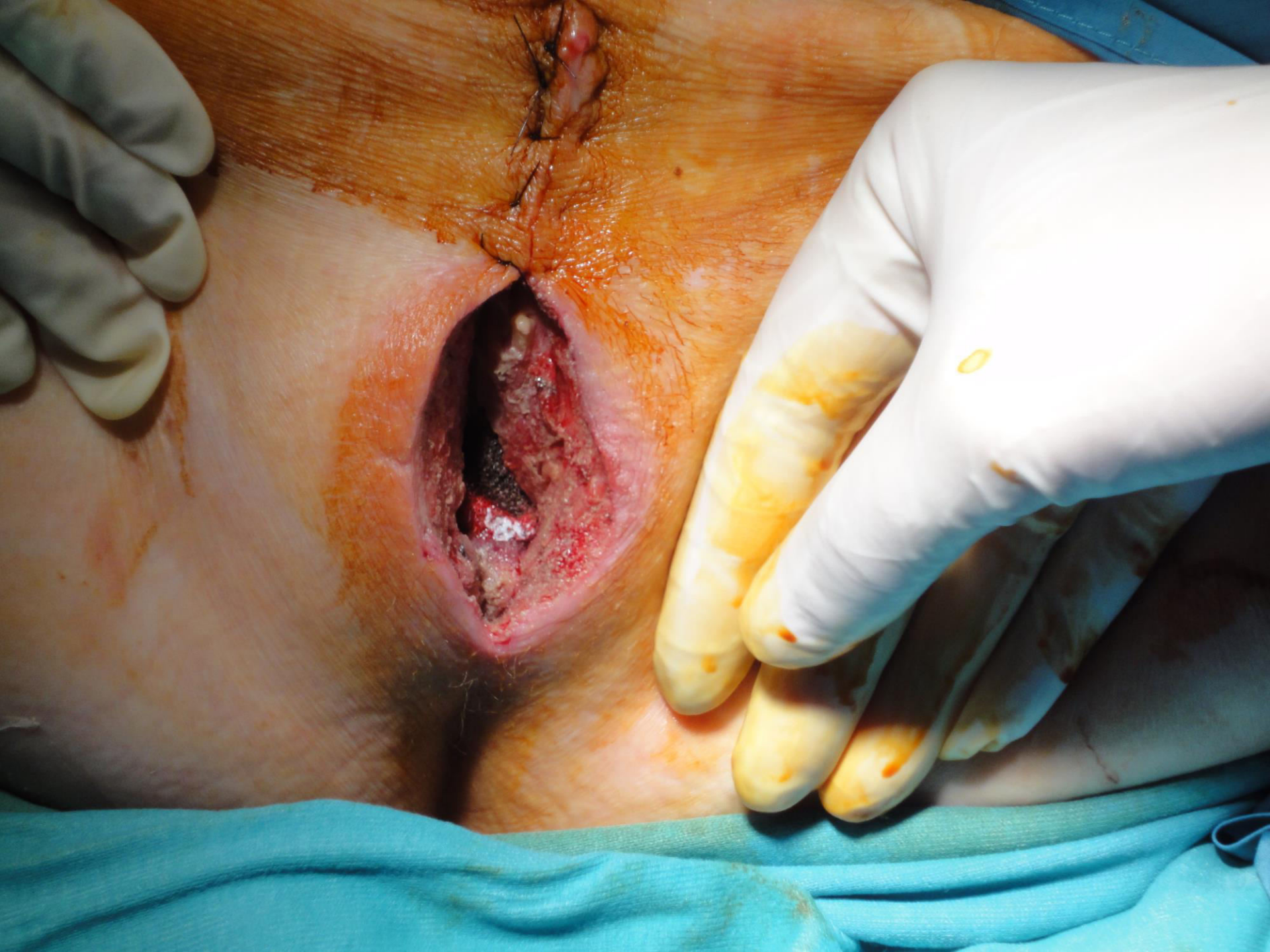


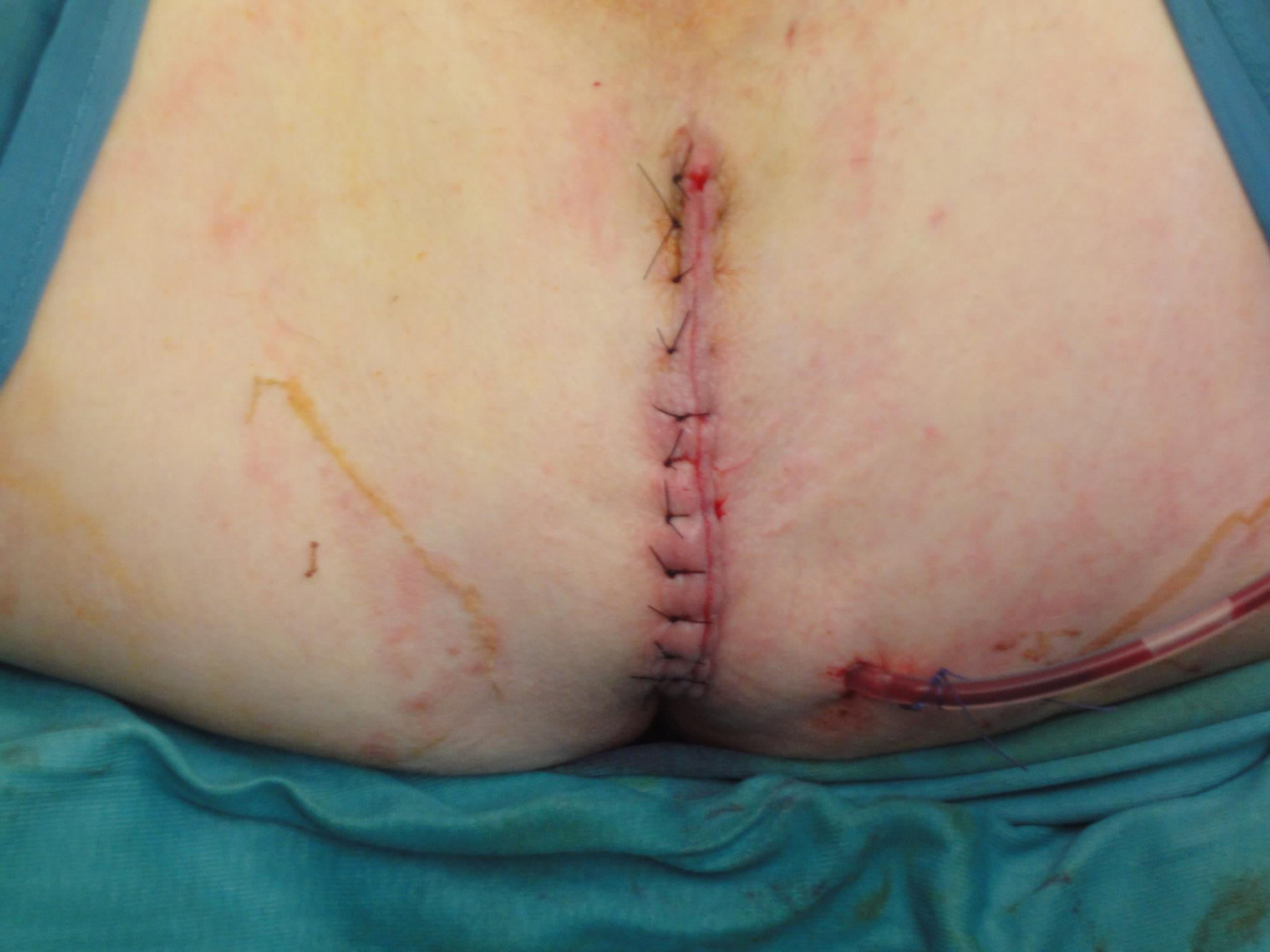


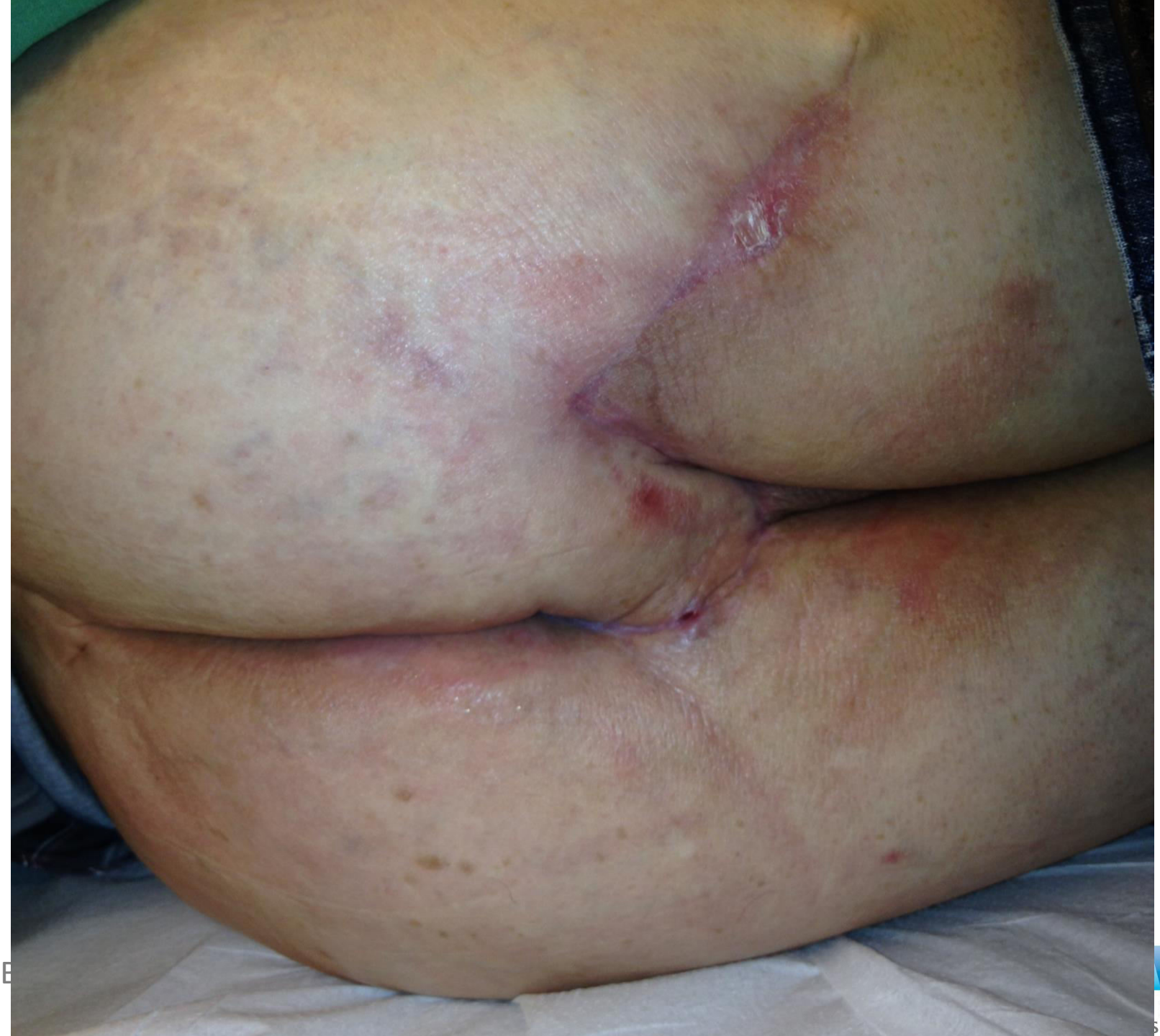












AB

BRÜDER
S GRAZ

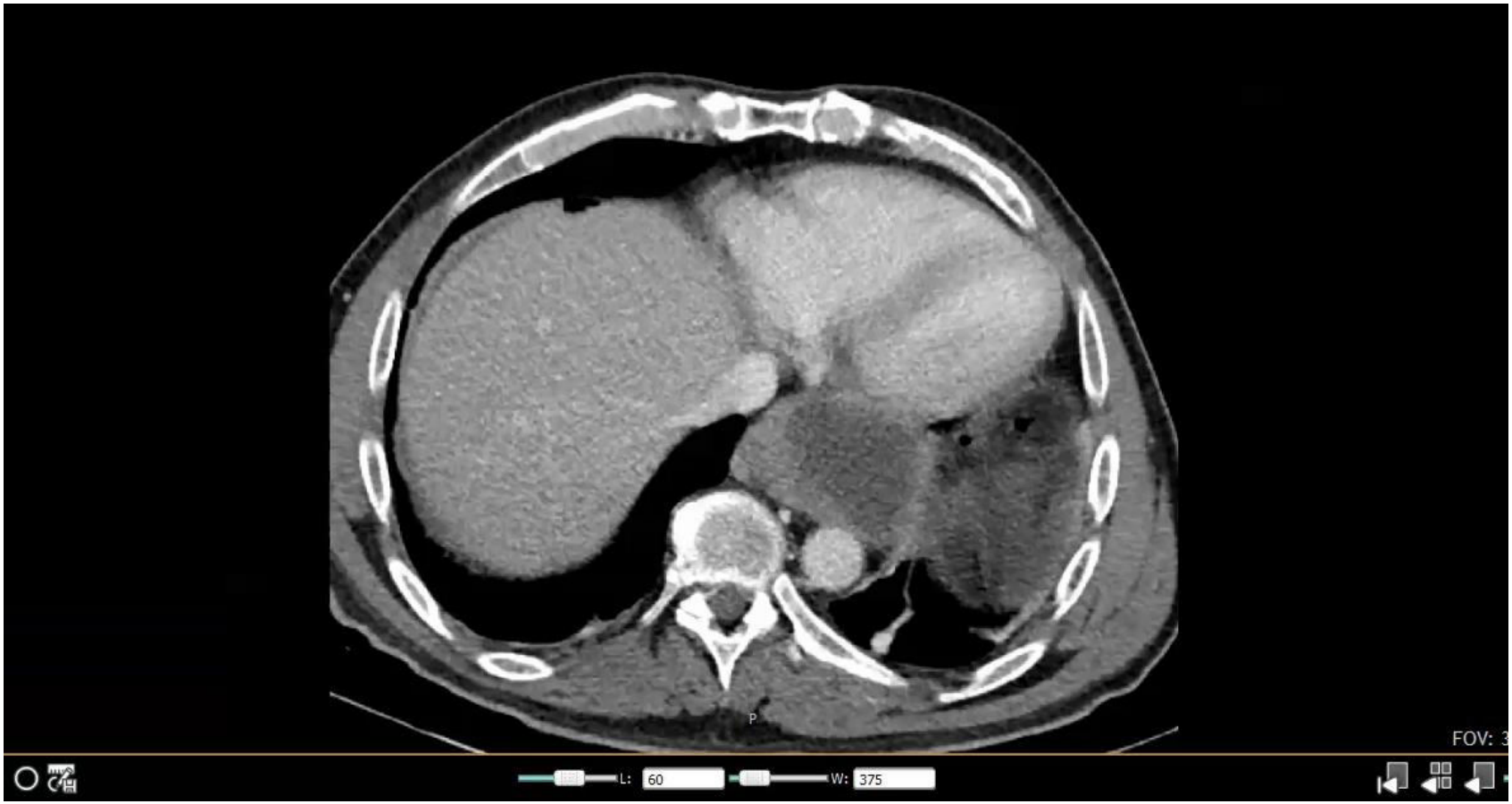
FALL 3

- **A.G. 55a / M**
- **Rektumkarzinom - distales Drittel** ypT-3a, G-2, ypN-0(0/13)
- PCT/RTX
- **Lap. Ta-TME, E/S -Anastomose + Schutzileostomie** 6/14

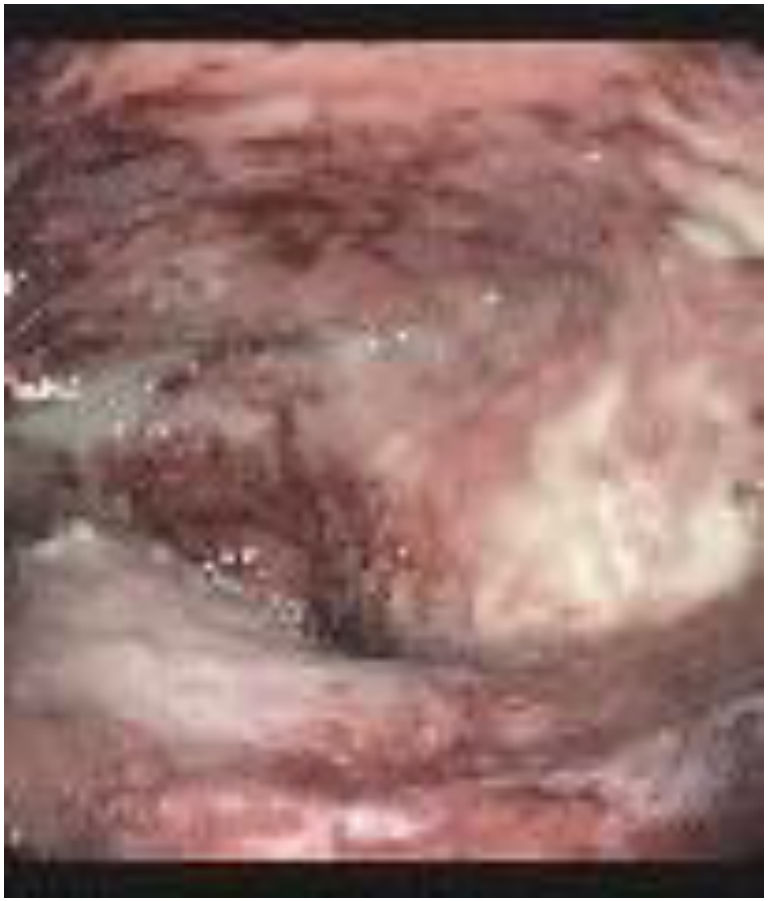
FALL 3

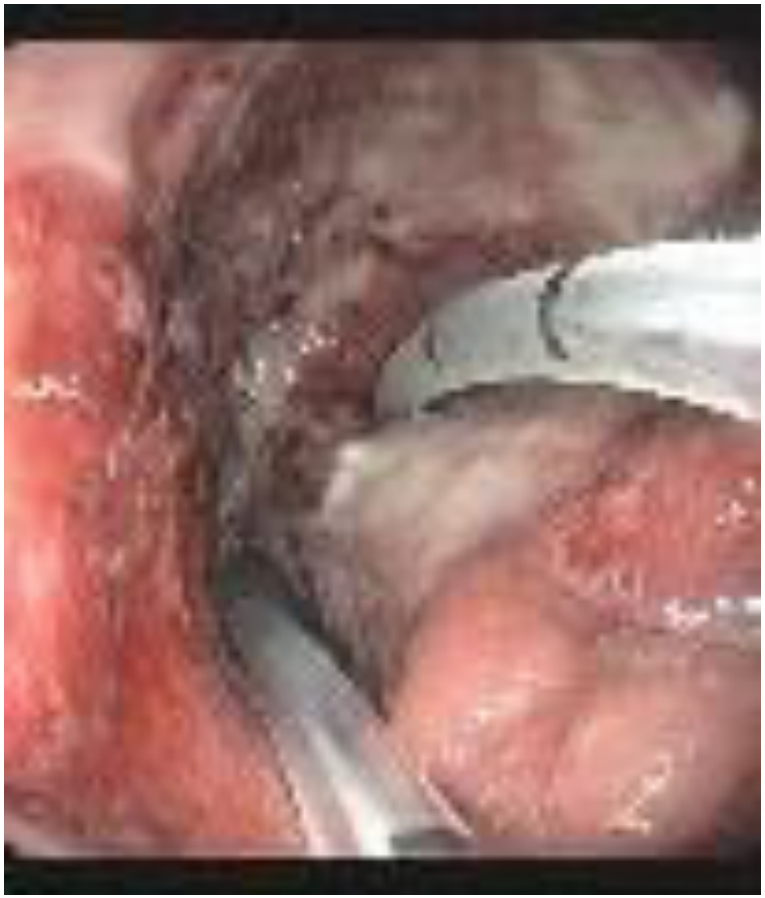
- **Anastomoseninsuffizienz am 7.postop. Tag (6/14)**
  - Relap + Abd. Vacuumtherapie (16/6/2014)
  - Sek. Verschluss 23/6/2014
  - EndoSponge Anlage
  - Lange frustrane Endo-VAC Therapie
  - Re OP: Neorektumextirpation + coloanale J-Pouchanastomose 4/2015

CT 6/2014 POST OP: AI



ENDOSPONGE-THERAPIE





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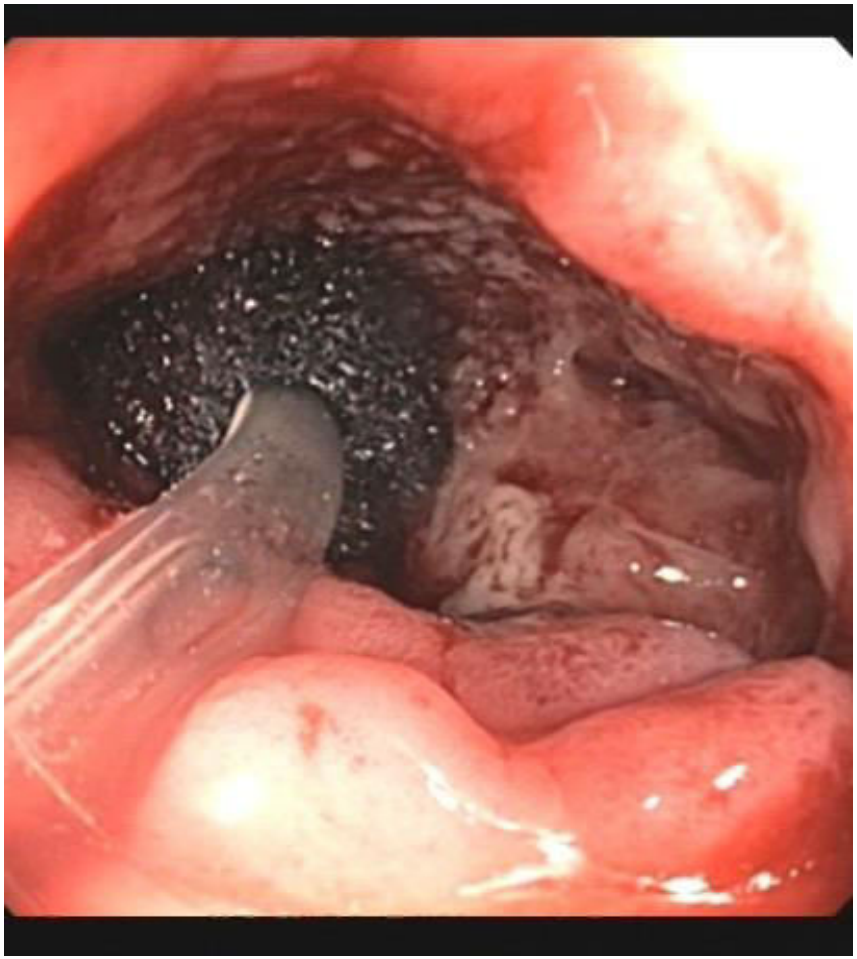
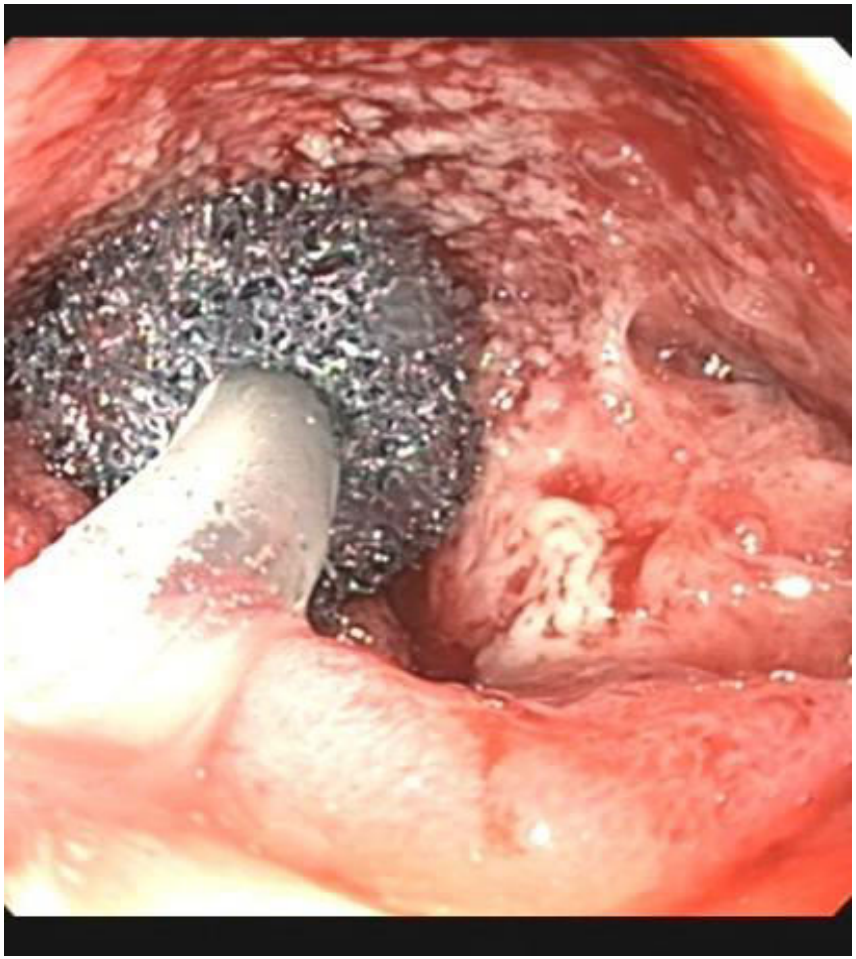
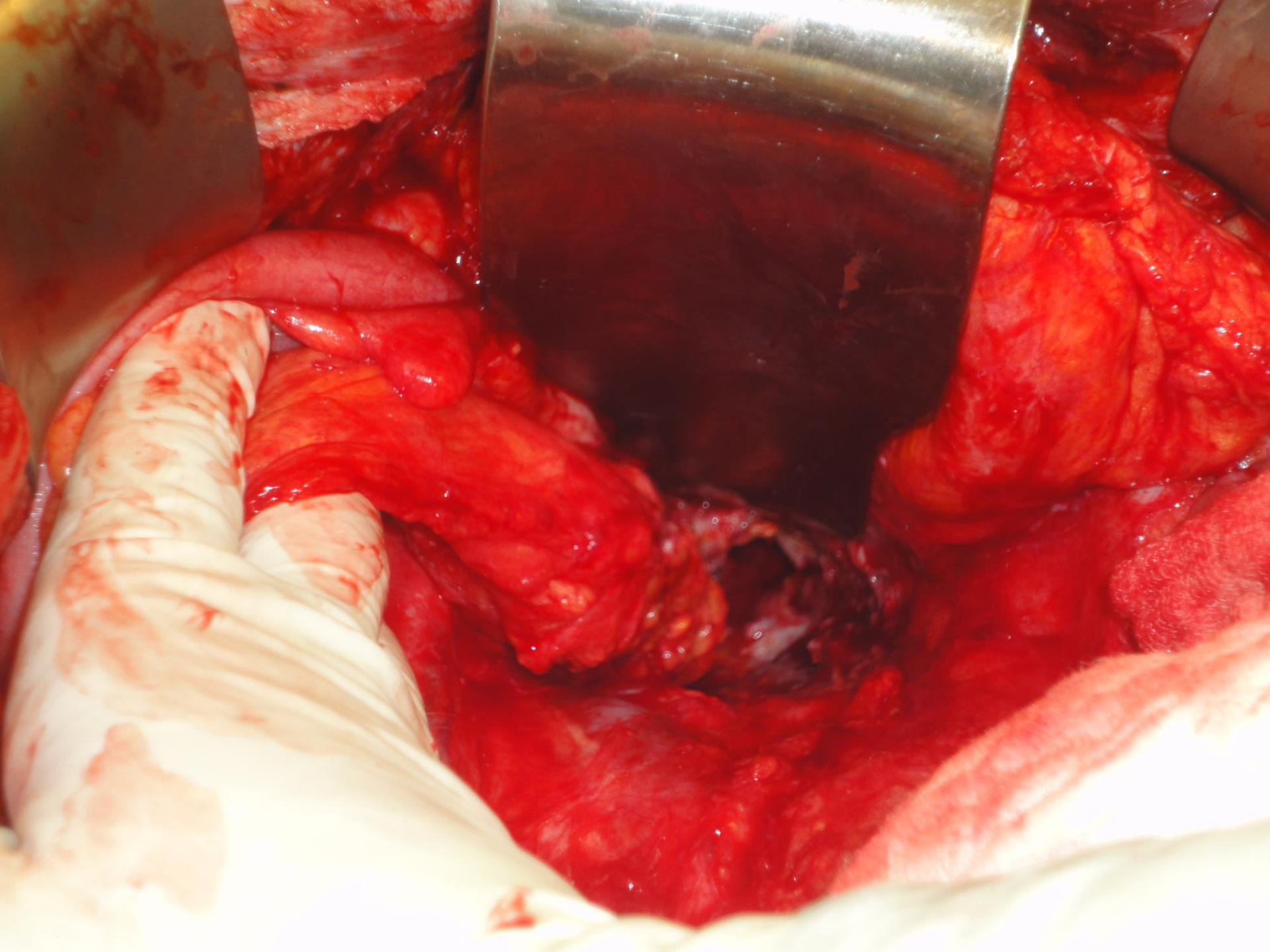
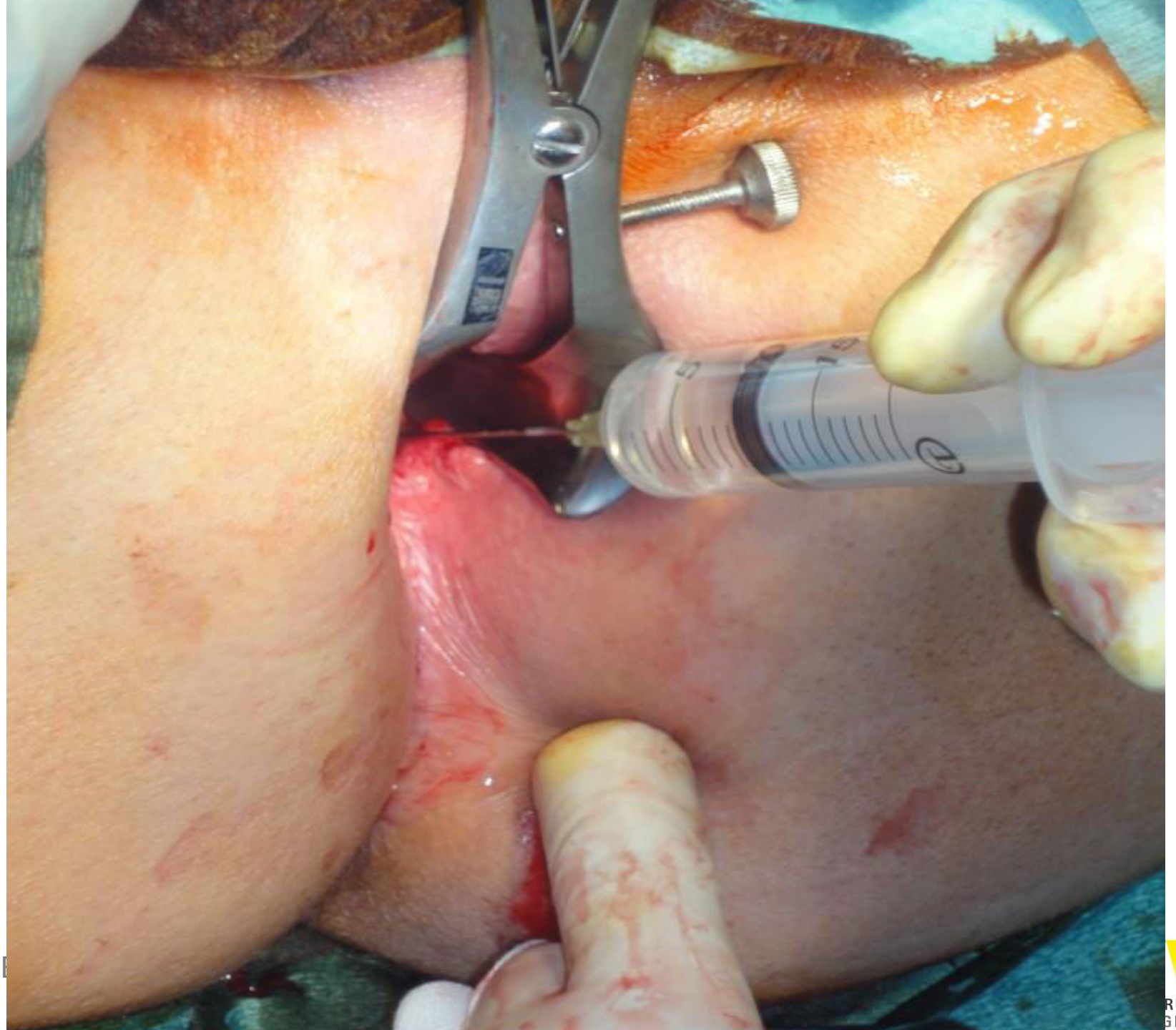
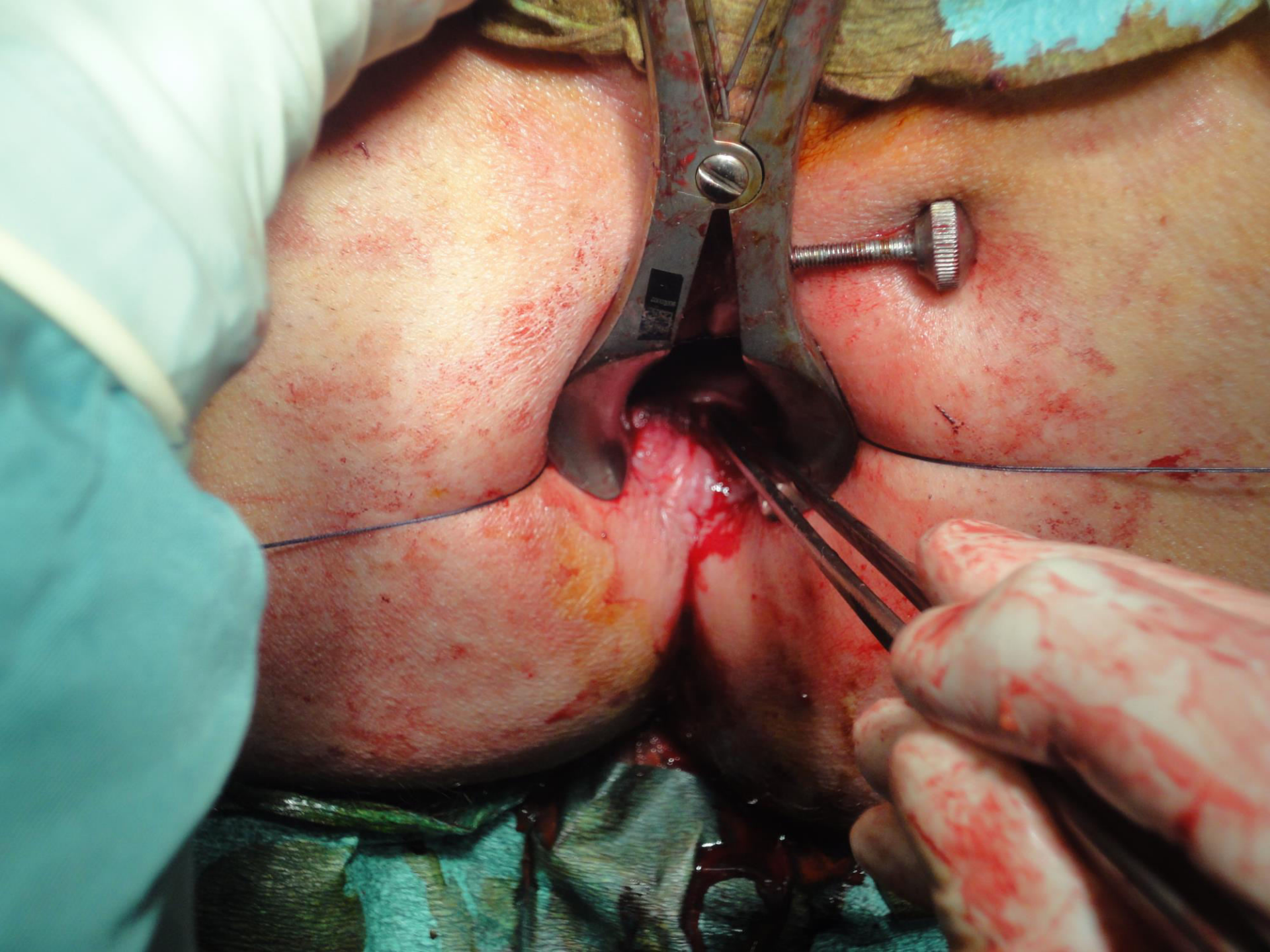
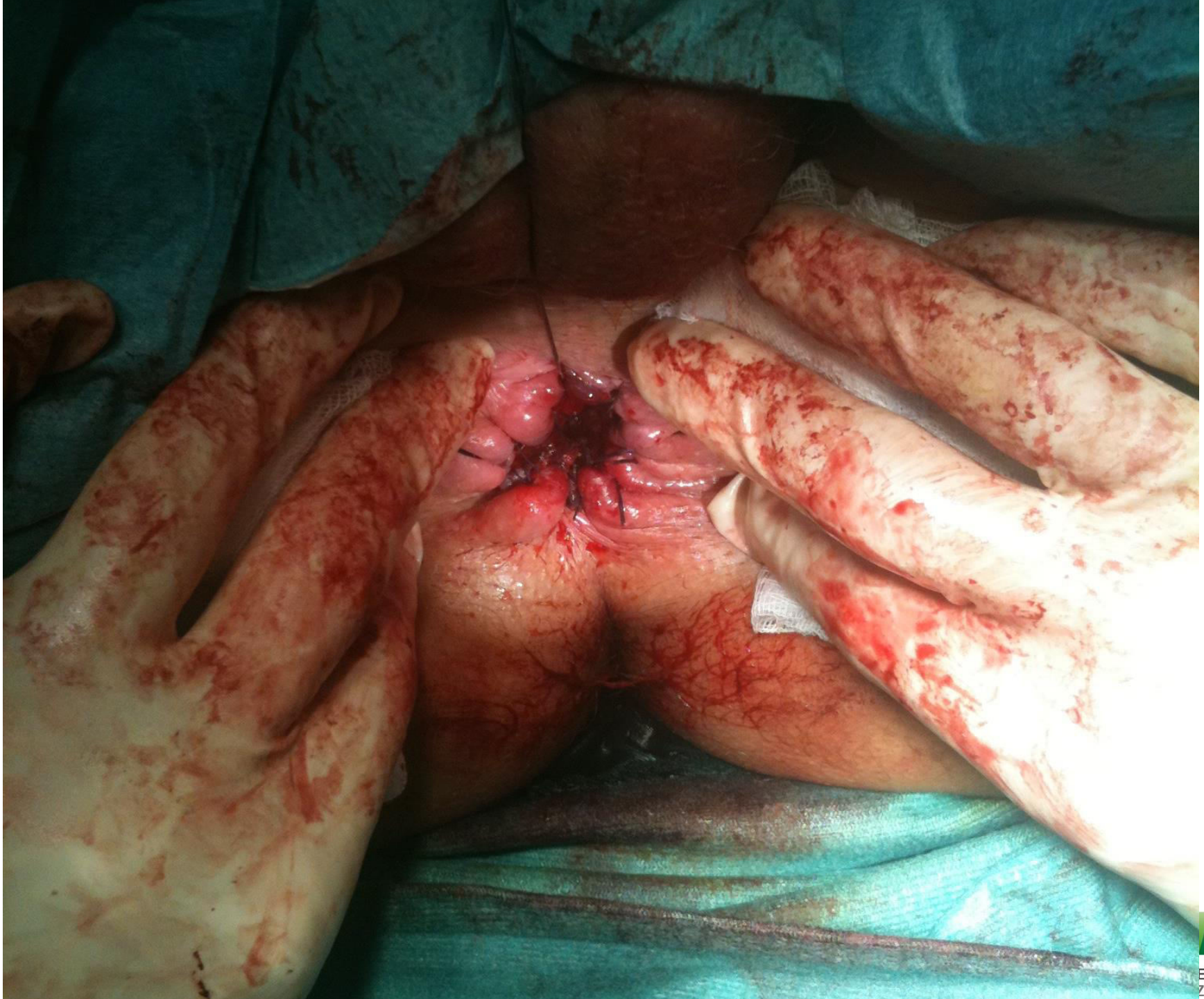


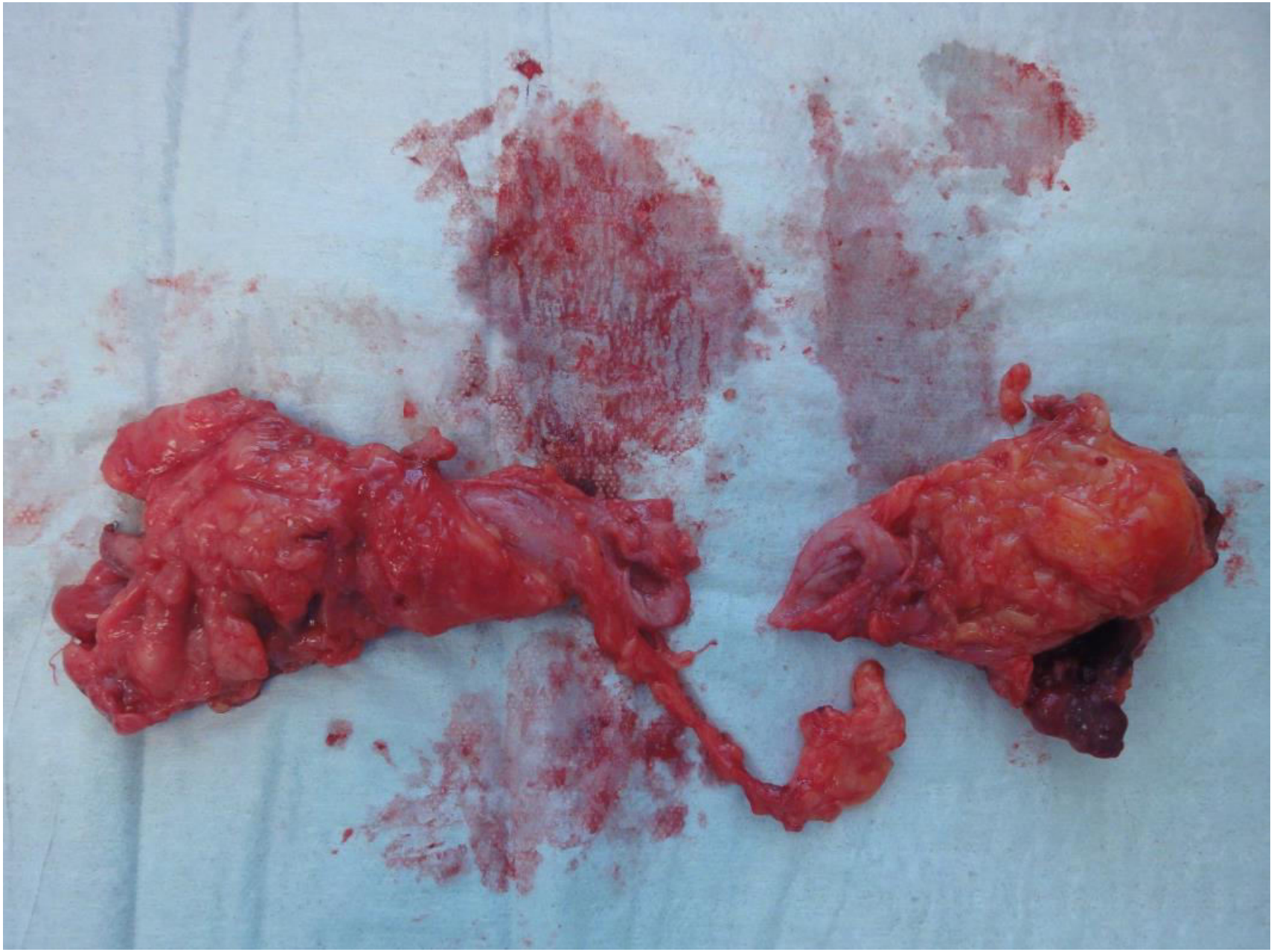










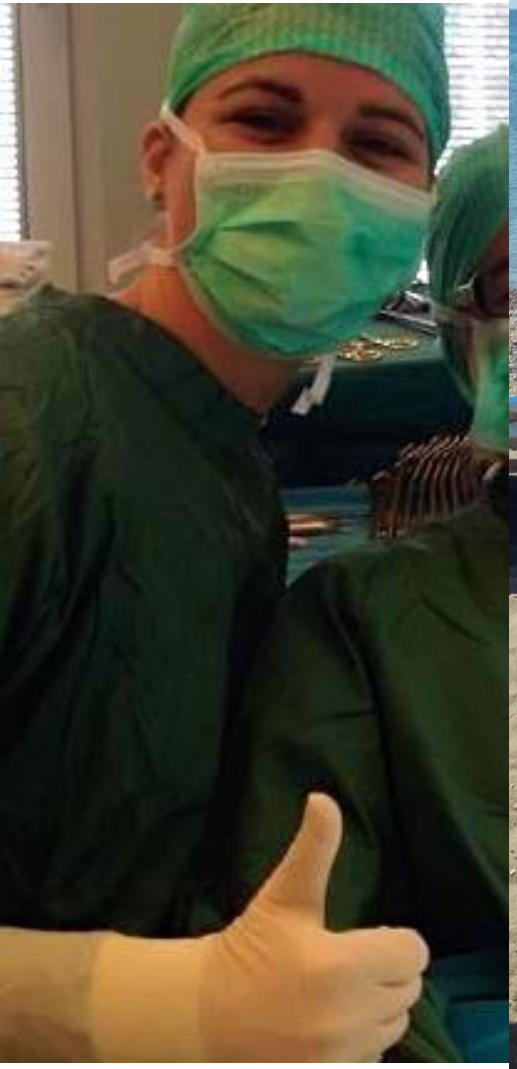


STADIENORIENTIERTE BEHANDLUNGSSTRATEGIEN

Grad	Klinische Manifestation	Strategien
A	Nicht primär chirurgisch Interventionspflichtig	Medika (AB, NSAR..) Radiolog. (Endoskop.) Kontrolle
B	Aktive Intervention Ohne Relaparotomie	CT- gezielte Punktion, Fibrin Kleber Endo Sponge, Deroofing
C	Relaparotomie	Faecale Diversion Beherrschung der abdominellen Sepsis
	Chronische Komplikationen	Neorektumexcision, APR Pelvic V.A.C.® Plastisch chirurgisches Vorgehen

ZUSAMMENFASSUNG

- **Abdominelle Sepsis beherrschen**
- **AI frühzeitig behandeln**
  - Faecal Diversion
  - Endo Sponge
- **Chronisch Präsacraler Abszess**
  - Neorektumexcision/ APR
  - Lokales „Pelvic“ V.A.C.® + Sekundärverschluss
- **Persistierender Sinus**
  - Rekonstruktion mit Lappenplastik



ISDS Rhodos 2014
GIRLS POWER!!

BARMHERZIGE BRÜDER
KRANKENHAUS GRAZ

WORK TOGETHER – GET TOGETHER!

DANKE FÜR IHRE AUFMERKSAMKEIT!

ABTEILUNG FÜR CHIRURGIE – BARMHERZIGE BRÜDER GRAZ

BARMHERZIGE BRÜDER
KRANKENHAUS GRAZ

BARMHERZIGE BRÜDER
KRANKENHAUS GRAZ

SPÄTKOMPLIKATIONEN

- Anastomosenstenose
- Sinus / Chronischer Abszess
- Pelvine Sepsis
- Osteomyelitis
- Hydronephrose, Harnblasenbeteiligung
- **LARS- low anterior resection syndrome**
- Stuhlinkontinenz
- Perineale Herniation

ETAR Nerve Sparing