

Chirurgische Behandlung der chronisch rezidivierenden Kopfpankreatitis



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Ätiologie

- Alkohol (75-90%)
- Hyperkalzämie
- Pankreas anulare
- Pankreas divisum
- Papillenstenose
- Familiär hereditäre Ursachen

Symptome

- Chronische Bauchschmerzen
- Exokrine Insuffizienz
 - Malabsorption
 - Steatorrhoe
- Endokrine Insuffizienz
- Gewichtsverlust

Komplikationen

- Schmerzen
- Gallenwegsstauung
- Gallengangstenosen
- Pseudozysten
- Duodenalstenose
- Colonstenose
- Maligne Entartung
- Segmentale portale Hypertension

OP-Indikationen

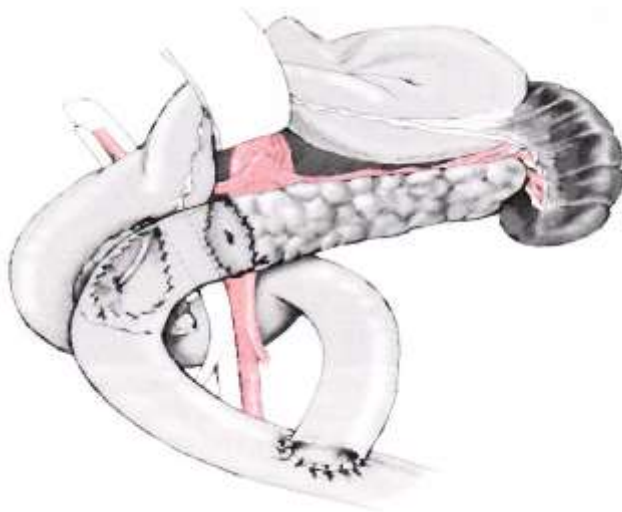
- **Mechanische Komplikationen:**
 - Choledochusstenose mit Cholestase
 - Duodenalstenose
 - Colonstenose
 - segmentale portale Hypertension
 - Gefäßkompression
- **Schmerzen**
- **Karzinomverdacht**

Klassische OP-Techniken

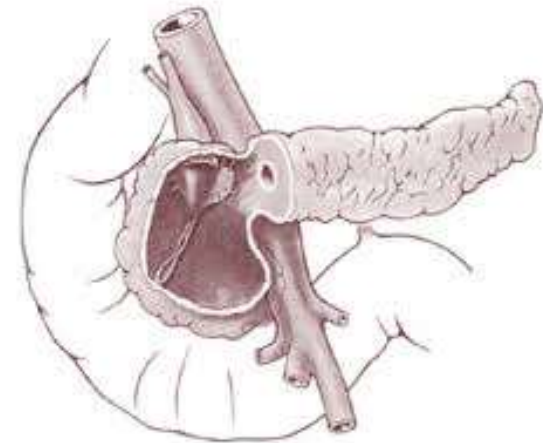
- Drainageverfahren:
 - laterolaterale Pankreatikojejunostomie
 - Zystojejuno- bzw. Zystogastrostomie
- Resektionsverfahren:
 - **Duodenumhaltende Kopfresektionen**
 - OP nach Whipple
 - Pankreaslinksresektion +/- Splenektomie
 - Totale Pankreatektomie

DPPHR

Beger



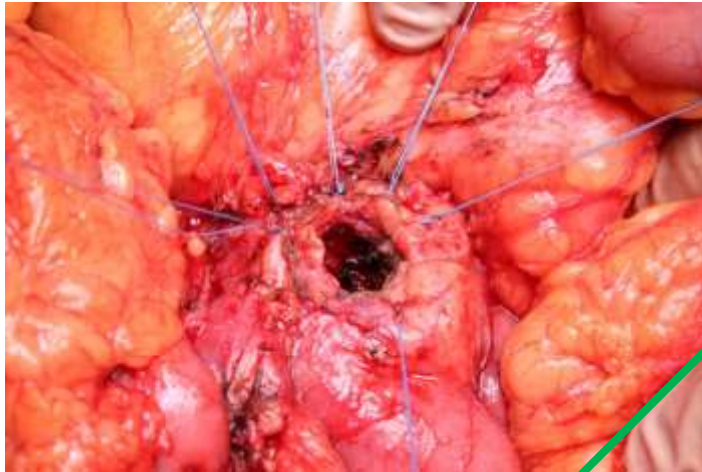
Frey



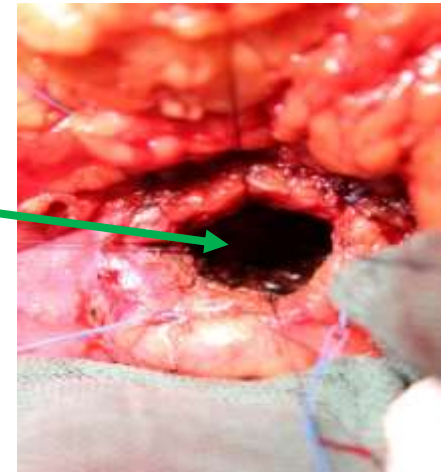
BEGER



FREY



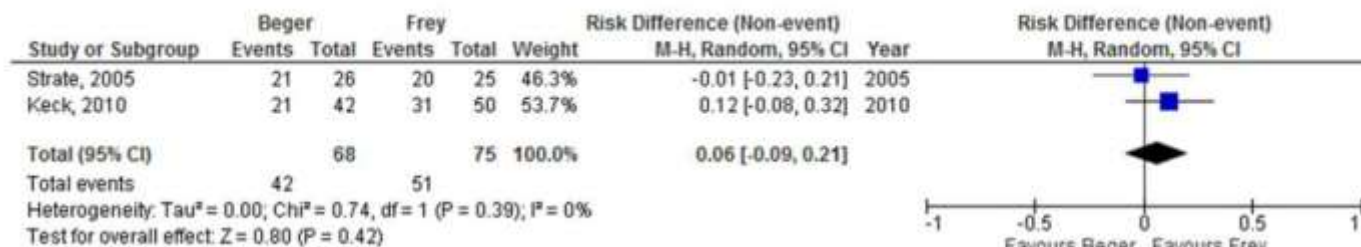
Resektionsschale
mit / ohne
Choledochus-
eröffnung



Short and long-term post-operative outcomes of duodenum preserving pancreatic head resection for chronic pancreatitis affecting the head of pancreas: a systematic review and meta-analysis

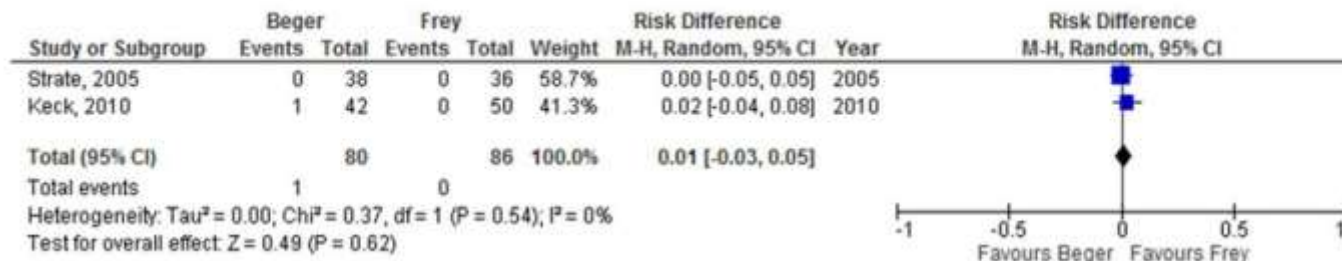
Zaynab A.R. Jawad¹, Nicole Tsim¹, Madhava Pai¹, Dev Bansi², David Westaby², Panagiotis Vlavianos² & Long R. Jiao¹

(a)



Schmerzen

(b)

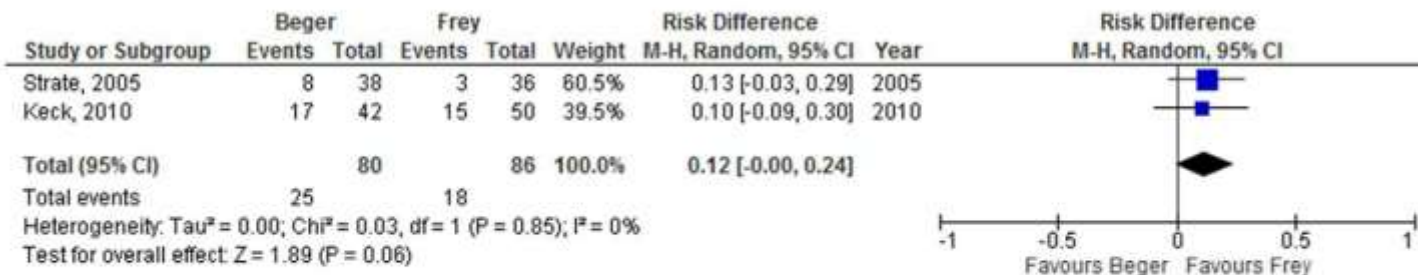


Mortalität

Jawad et al., HPB Oxford 2015

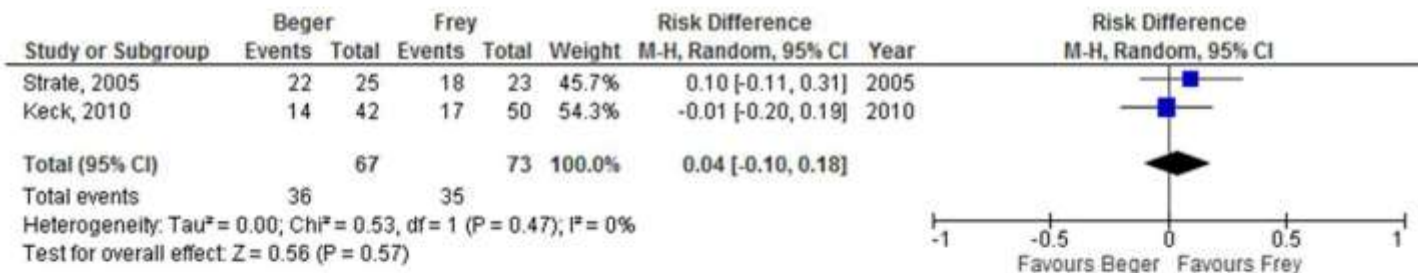


(c)



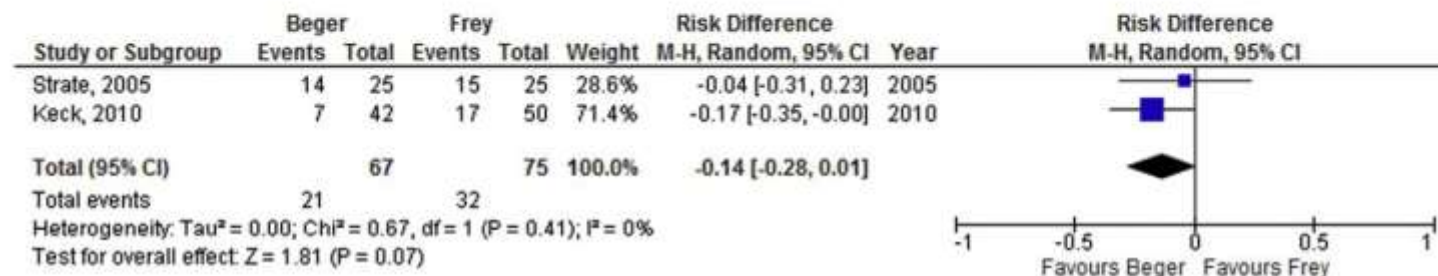
Morbidität

(d)



Ex Insuff.

(e)



End Insuff.

Beger - Frey

Table 3 Primary and secondary outcomes for studies included in the systematic review

Study	Keleman and Horvath, 2002 Frey:Beger	Strate <i>et al.</i> , 2005 Frey:Beger	Koninger <i>et al.</i> , 2008 Beger:Berne	Sakata <i>et al.</i> , 2009 Mod.:Min. Frey	Keck <i>et al.</i> , 2010 Frey:Beger
Pain relief	7/12:17/27	20/25:21/26	n/a	21/25:28/32 ^a	31/50:21/42
Mortality	0/13:0/32	0:0	0/26:0/29	0/25:0/32	0/50:1/42
Morbidity	0/13:8/32	3/36:8/38	6/26:7/29	5/25:3/32	15/50:17/42
Exocrine insufficiency	10/12:23/27	18/23:22/25	NS	NS	17/50:14/42
Endocrine insufficiency	3/12:1/27	15/25:14/25	NS	4/25:2/32	17/50:7/42

^a At time of discharge.

5 randomisierte Studien (n-323) – Beger/Frey: vergleichbare Ergebnisse

Jawad et al., HPB Oxford 2015

Whipple - Beger

- Schmerzreduktion vergleichbar
- Endo- und exokrine Funktion gleich
- Vorteile DPPHR
 - kürzere OP Zeit
 - geringere Komplikationsrate 3 vs. 19%
 - kürzere Verweildauer
 - geringeres Organopfer

Keck et al., Surgery 2012

Roch et al., J Gastrointest Surg 2012

Zheng et al., Pancreas

Endoskopie - Chirurgie

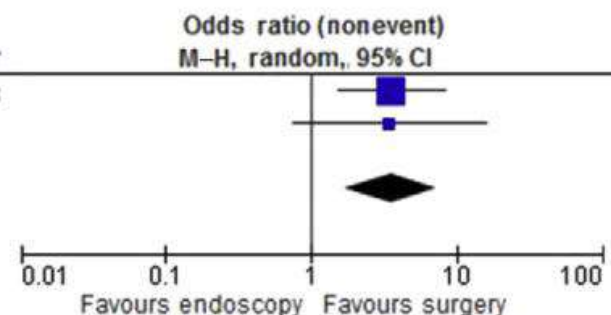
Surgery remains the best option for the management of pain in patients with chronic pancreatitis: A systematic review and meta-analysis

Zaynab A.R. Jawad ^a, Charis Kyriakides ^a, Madhava Pai ^a,
Chris Wadsworth ^b, David Westaby ^b, Panagiotis Vlavianos ^b,
Long R. Jiao ^{a,*}

Jawad et al., Asian J Surg 2016

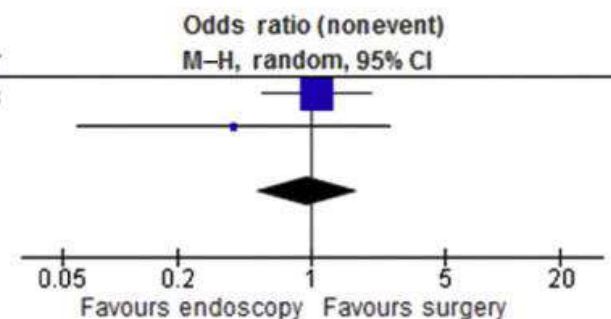
A Complete pain relief

Study or Subgroup	Endoscopy		Surgery		Weight	Odds ratio (nonevent)	Year
	Events	Total	Events	Total		M-H, random, 95% CI	
Dite 2003	9	64	28	76	76.4%	3.56 (1.53, 8.30)	2003
Cahen 2011	4	16	8	15	23.6%	3.43 (0.75, 15.67)	2011
Total (95% CI)		80		91	100.0%	3.53 (1.69, 7.39)	
Total events	13		36				
Heterogeneity: Tau ² = 0.00; Chi ² = 0.00, df = 1 (p = 0.96); I ² = 0%							
Test for overall effect: Z = 3.35 (p = 0.0008)							



B Partial pain relief

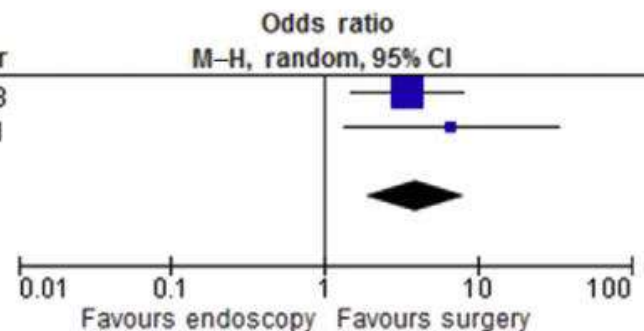
Study or Subgroup	Endoscopy		Surgery		Weight	Odds ratio (nonevent)	Year
	Events	Total	Events	Total		M-H, random, 95% CI	
Dite 2003	38	76	33	64	88.8%	1.06 (0.55, 2.07)	2003
Cahen 2011	4	15	2	16	11.2%	0.39 (0.06, 2.55)	2011
Total (95% CI)		91		80	100.0%	0.95 (0.51, 1.78)	
Total events	42		35				
Heterogeneity: Tau ² = 0.00; Chi ² = 0.97, df = 1 (p = 0.33); I ² = 0%							
Test for overall effect: Z = 0.15 (p = 0.88)							



Jawad et al., Asian J Surg 2016

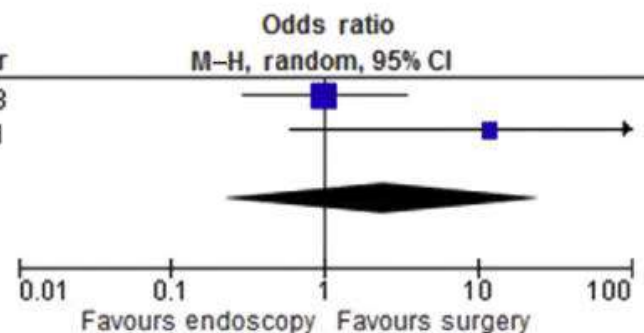
C No pain relief

Study or Subgroup	Endoscopy		Surgery		Weight	Odds ratio M-H, random, 95% CI	Year
	Events	Total	Events	Total			
Dite 2003	22	64	10	76	78.7%	3.46 (1.49, 8.02)	2003
Cahen 2011	10	16	3	15	21.3%	6.67 (1.32, 33.69)	2011
Total (95% CI)		80		91	100.0%	3.97 (1.88, 8.39)	
Total events	32		13				
Heterogeneity: Tau ² = 0.00; Chi ² = 0.50, df = 1 (p = 0.48); I ² = 0%							
Test for overall effect: Z = 3.62 (p = 0.0003)							



D Morbidity

Study or Subgroup	Endoscopy		Surgery		Weight	Odds ratio M-H, random, 95% CI	Year
	Events	Total	Events	Total			
Dite 2003	5	64	6	76	64.8%	0.99 (0.29, 3.40)	2003
Cahen 2011	4	19	0	20	35.2%	11.90 (0.60, 237.96)	2011
Total (95% CI)		83		96	100.0%	2.37 (0.22, 25.97)	
Total events	9		6				
Heterogeneity: Tau ² = 1.90; Chi ² = 2.39, df = 1 (p = 0.12); I ² = 0%							
Test for overall effect: Z = 0.71 (p = 0.48)							



Jawad et al., Asian J Surg 2016

Table 2 Complication types in the two randomized control trials.

Complications	Dite et al ¹³ , 2003		Cahen et al ¹⁵ , 2011	
	Surgery	Endoscopy	Surgery	Endoscopy
Morbidity	6	5	7 (4)	18 (6)
Acute pancreatitis	2	2	0	4
Bleeding	0	2	2	0
Cholecystitis	0	0	0	1
Pancreatic abscess	0	1	0	0
Fistula	2	0	0	0
Anastomotic leak	1	0	1	n/a
Ileus	1	0	0	n/a
Wound infection	0	0	3	1
Cardiopulmonary	0	0	1	0
Stent related	0	0	n/a	5 (2)
Ruptured pancreatic duct	0	0	0	(2)
Other minor complications	0	0	0	7
Mortality	0	0	0 (4)	1 (2)

Numbers in brackets show additional complications at 5-year follow up.
n/a = not available.

Benefit der Endoskopie
 **kurzfristig**

Morbidity und Mortalität sind vergleichbar

Jawad et al., Asian J Surg 2016

DPPHR

eigene Zahlen Horn

N	10
Beger/Frey	2/8
♂/♀	10/0
Alter	50-82 (Ø 60,1)
Komplikationen	2 (10)
Mortalität	0
Endokrine Funktion ↑↑	7/10
Exokrine Funktion ↑↑	8/10
Gewichtszunahme	8/10
Schmerzbesserung	9/10

Schlußfolgerung

- Chirurgie ist besser als interventionell-endoskopische Therapie
 - *Schmerzkontrolle*
 - *Lebensqualität*
 - *exo- und endokrine Funktion*
 - *Gewichtszunahme*
 - *Morbidität und Mortalität sind vergleichbar*
- Chirurgie senkt das Karzinomrisiko
- DPPHR abhängig vom Lokalbefund vorzuziehen

Herzlichen Dank für Ihre Aufmerksamkeit