VAATCHIRURGISCHE BLIK OP WONDEN

Jorg L de Bruin
Vaatchirurg Erasmus MC

JDB

Disclosures

- Geen
- Wel voorstander van minimaal invasieve endovasculaire procedures

Kenniscentrum Wondzorg

VAATCHIRURGISCHE BLIK OP WONDEN

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Vaatchirurg Erasmus MC

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Introductie

- Casus presentatie
- Evidence
- Preventie maatregelen
- Discussie

Casus

- 63 jarige patient
- VG Hypertensie, MI, PCI, Colitis Ulcerosa, Liesdesobstrcutie links 6 weken
- Beiderzijds niet genezende wonden
- Immuunsupressiva

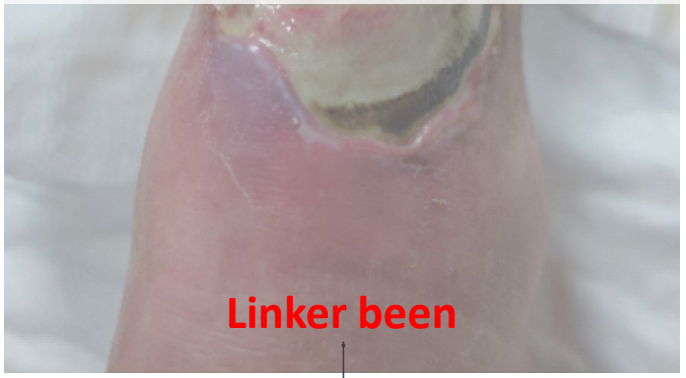
Casus

Casus

Rechter been

PAOD 4 ??

Rechter been

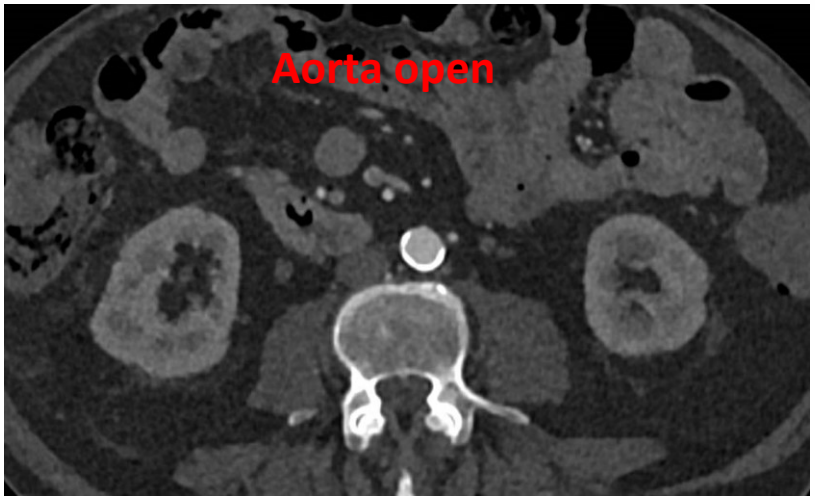


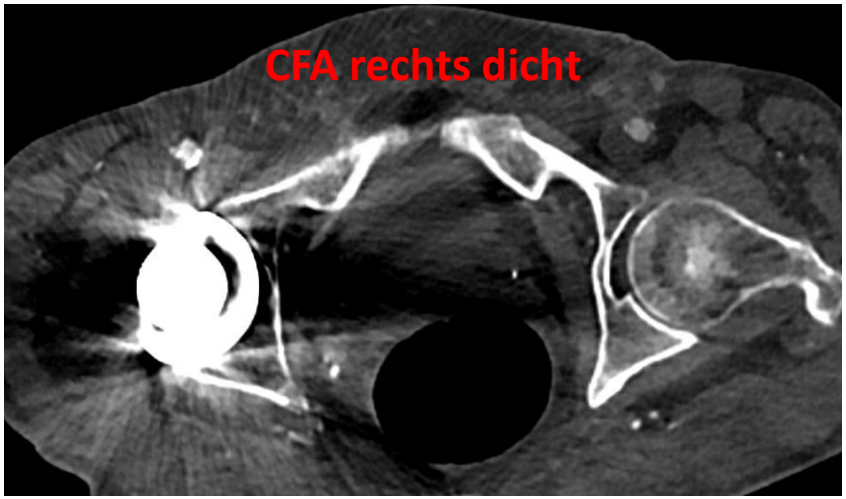
Linker been

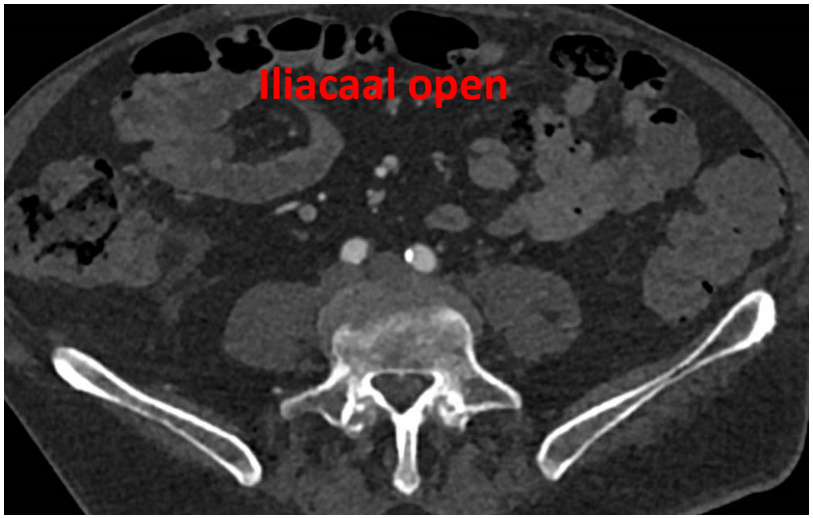
Casus

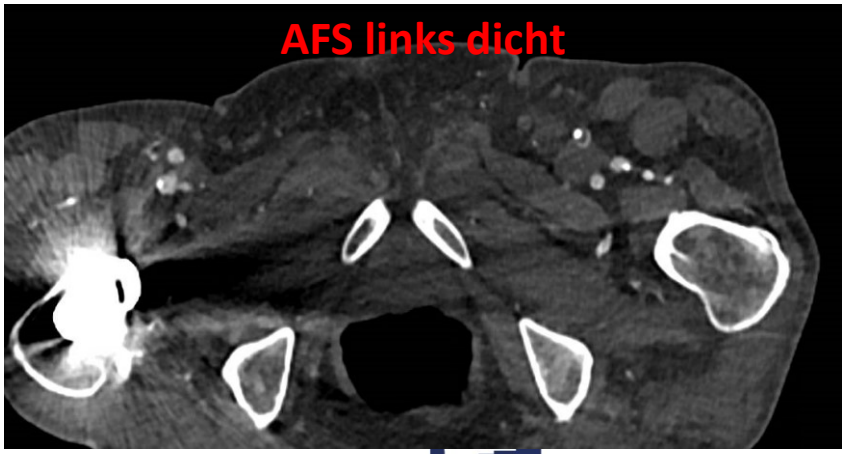
- Net operatie links gehad?
- Toch vaatonderzoek?
- CT-A verricht

Casus *CT-angio*

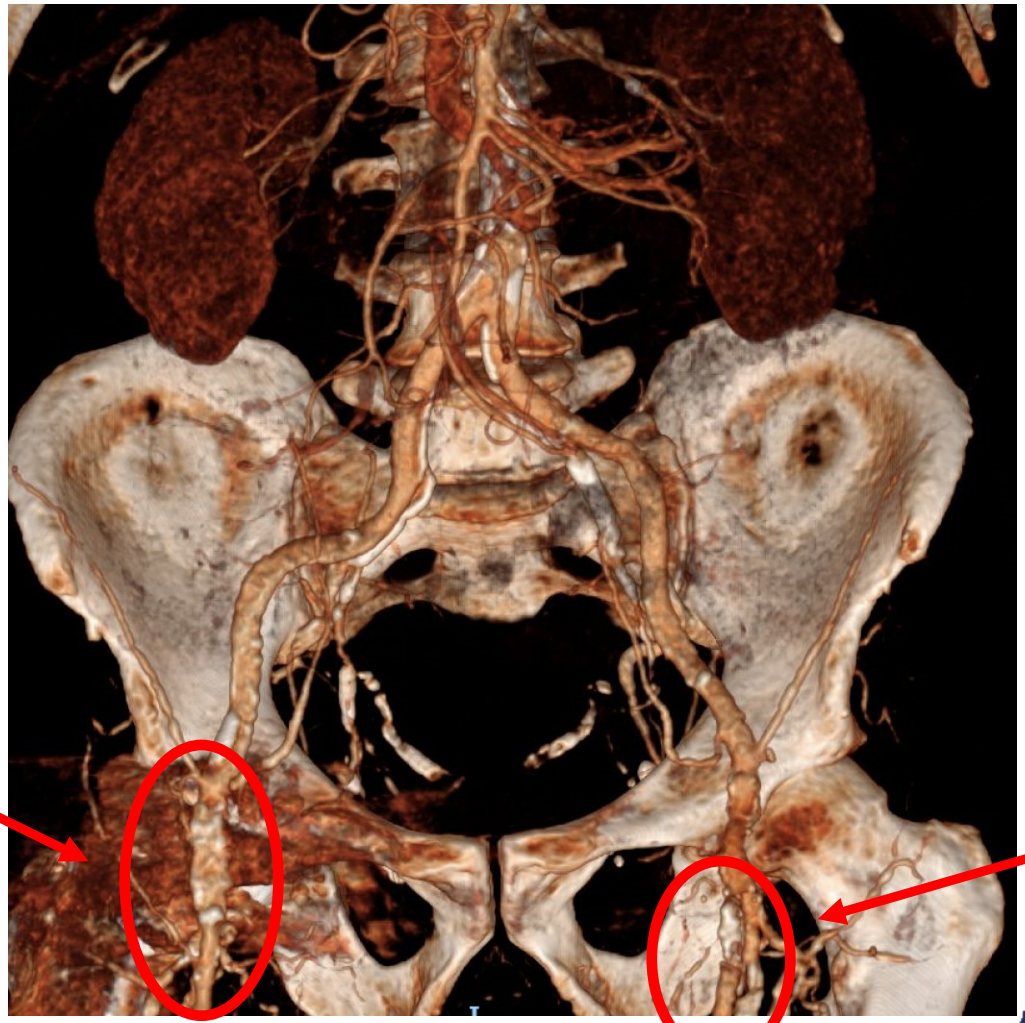








Casus *CT-angio 3D recon*



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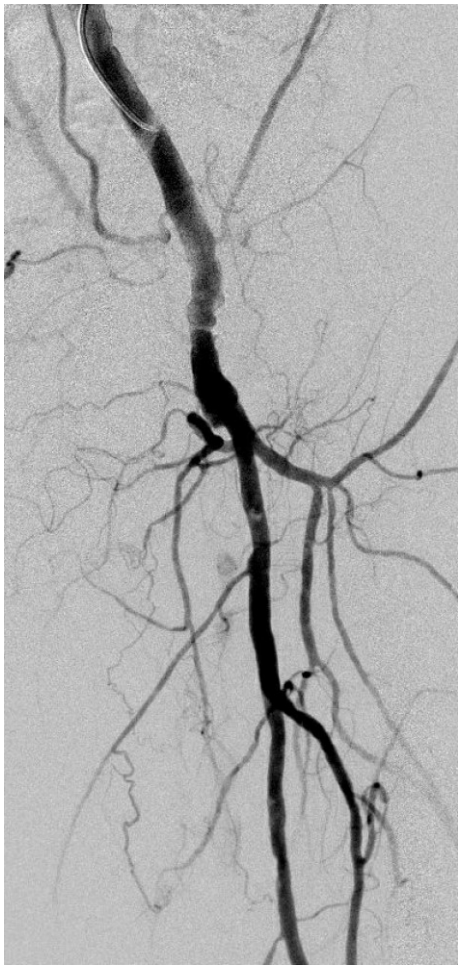
Casus

- Aorto-iliacaal open
- CFA rechts dicht/hooggradige stenose
- AFS links dicht (na liesdesobstructie links 6w)
- Plan?
- Rechts liesdesobstructie/Links?

Casus

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Casus

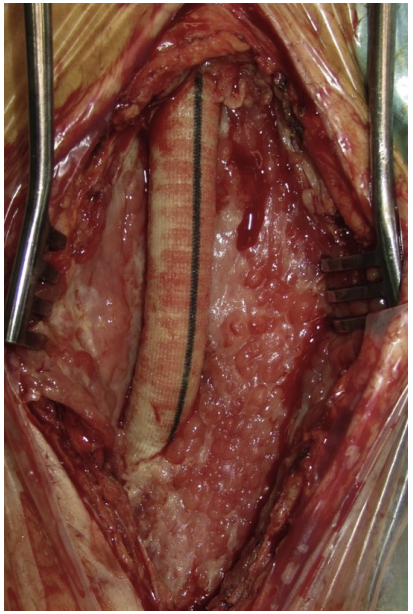
- Debridement benen beiderzijds
- VAC therapie
- Fysiotherapie

Casus

- Debridement benen beiderzijds

Casus

- Gecompliceerd door wondinfectie lies
- Antibiotica genezen
- Hoe vaak komt dit voor?



Evidence

- Liesdesobstructie perfecte operatie met goede patency!
- Excellente primaire patency rates [1, 2, 3]
  - 1 year: 93%
  - 5 year: 74-91%
  - 10 year: 94%

1. Lee M, et al. Vasc Med 2017;22(4):301–6
2. Kang L, et al. J Vasc Surg 2008;48(4):872–7
3. Kuma S, et al. Circ J 2015;80(4):964–9

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Evidence

- Chirurgische infectie is een majeure complicatie na liesdesobstructie
- Chirurgische infectie (Surgical Site Infection)
  - 2.6% - 31%
  - Diep vs. oppervlakkig

JDB

Evidence *GIVE studie UK*

- 37 centra deden mee in de GIVE studie (30 UK en zeven international)
- Inclusie: patienten na electieve en spoed chirurgie waarbij lies werd gebruikt (vaatchirurgie)
- 1337 lies incisies (1039 patienten) van 37 centra

JDB

Evidence *GIVE studie UK*

- 37 centres deden mee in de GIVE

ORIGINAL ARTICLE

IWJ WILEY

Groin wound infection after vascular exposure (GIVE) multicentre cohort study

Groin wound Infection after Vascular Exposure (GIVE) Study Group

- 1337 lies incisies (1039 patienten) van

  37 centra

JDB

Evidence *GIVE studie*

- SSI >>>> 8.6% (wondinfecties)
  - ***4.6% superficial***
  - ***3.8% deep***
- Chirurgische re-interventie 43%
- 90-dagen mortaliteit (8.4% versus 4.9%; P = 0.114)
- Significant meer nierfalen (19.6% versus 11.7%; P = .018)
- Patienten met wondinfectie significante opanmeduur (P = .005)

Evidence *GIVE studie UK*

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Table 1. Results of multivariable analysis for all surgical site infections (SSIs) and deep/organ space SSIs in 1 039 patients undergoing an arterial procedure through 1 339 groin incisions. Table adapted from tables presented in the Groin wound Infection after Vascular Exposure study[5]

Variable	OR (95% CI)	*p* value
Independent predictors of all SSIs		
Female	1.708 (1.095 – 2.663)	.018
Weight		
Normal, BMI 18.5 – 24.9	Reference	
Underweight, BMI < 18.5	1.868 (0.822 – 4.243)	.14
Overweight, BMI 25 – 29.9	1.302 (0.648 – 2.618)	.46
Obese, BMI ≥ 30	2.916 (1.511 – 5.626)	.002
Ischaemic heart disease	2.213 (1.471 – 3.330)	<.001
Skin prep		
Alcoholic chlorhexidine	Reference	
Aqueous chlorhexidine	0.674 (0.251 – 1.810)	.43
Alcoholic betadine	0.944 (0.540 – 1.650)	.84
Aqueous betadine	2.784 (1.515 – 5.117)	.001
Two solutions	1.022 (0.329 – 3.172)	.97
Bypass/patch material		
None	Reference	
Vein	2.420 (1.178 – 4.970)	.016
Xenograft	4.864 (2.427 – 9.748)	<.001
Prosthetic	2.556 (1.268 – 5.149)	.009
Operation time – h	1.152 (1.022 – 1.299)	.021
Independent predictors of deep/organ space SSIs		
Female sex	1.947 (1.064 – 3.560)	.031
Diabetes, any	1.947 (1.068 – 3.549)	.030
Skin prep		
Alcoholic chlorhexidine	Reference	
Aqueous chlorhexidine	0.897 (0.208 – 3.864)	.88
Alcoholic betadine	0.717 (0.285 – 1.806)	.48
Aqueous betadine	4.129 (1.961 – 8.694)	<.001
Two solutions	1.310 (0.293 – 5.854)	.72
Bypass/patch material		
None	Reference	
Vein	1.027 (0.387 – 2.726)	.96
Xenograft	2.798 (1.155 – 6.778)	.023
Prosthetic	1.384 (0.565 – 3.392)	.48

Groin Wound Infection after Vascular Exposure (GIVE) Risk Prediction Models: Development, Internal Validation, and Comparison with Existing Risk Prediction Models Identified in a Systematic Literature Review

Brenig L. Gwilym [a,*], Graeme K. Ambler [b], Athanasios Saratzis [c], David C. Bosanquet [a], on behalf of the Groin wound Infection after Vascular Exposure (GIVE) Study Group [d,i]

- Kritieke ischemie

  patienten met wonden
- Re-interventie
- ASA 4/5
- Roken
- Leeftijd > 65 jaar

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Preventie is essentieel

- Dwarse incisie?
- Verlengde duur antibiotica?
- Lokale antibiotica?
- Wond drain?
- PICO of andere dressing/wondbedekking

JDB

SYSTEMATIC REVIEW

Editor's Choice – Systematic Review and Meta-Analysis of Wound Adjuncts for the Prevention of Groin Wound Surgical Site Infection in Arterial Surgery

- 24 studies tussen 1980 – 2020
- 17 RCT's 7 cohort studies
- 4130 lies incisies 67.5% man
- Mean follow-up 49 dagen
- **Wondinfectie 17.7% !**

Vascular Infection

Eur J Vasc Endovasc Surg (2021) 61, 636–646

SYSTEMATIC REVIEW

Editor's Choice – Systematic Review and Meta-Analysis of Wound Adjuncts for the Prevention of Groin Wound Surgical Site Infection in Arterial Surgery

Brenig L. Gwilym [a,*], George Dovell [b], Nikesh Dattani [c], Graeme K. Ambler [b], Joseph Shalhoub [d,e], Rachael O. Forsythe [f], Ruth A. Benson [g], Sandip Nandhra [h], Ryan Preece [i], Sarah Onida [d,e], Louise Hitchman [j], Patrick Coughlin [k], Athanasios Saratzis [l], David C. Bosanquet [a]

[a] South East Wales Vascular Network, Royal Gwent Hospital, Newport, UK
[b] University of Bristol, Bristol, UK
[c] Queen Elizabeth Hospital Birmingham, Birmingham, UK
[d] Imperial Vascular Unit, Imperial College Healthcare NHS Trust, London, UK
[e] Academic Section of Vascular Surgery, Department of Surgery & Cancer, Imperial College London, London, UK
[f] Centre for Cardiovascular Science, University of Edinburgh, Edinburgh, UK
[g] University of Birmingham, Birmingham, UK
[h] Northern Vascular Centre, Institute of population health sciences, Newcastle University, Newcastle, UK
[i] Cheltenham General Hospital, Cheltenham, UK
[j] Hull York Medical School, Hull, UK
[k] Cardiovascular Interdisciplinary Research Centre, University of Cambridge, Cambridge, UK
[l] NIHR Leicester Biomedical Research Centre, University of Leicester Department of Cardiovascular Sciences, Leicester, UK

WHAT THIS PAPER ADDS

This review supports closed incision negative pressure wound therapy (ciNPWT) as an effective intervention for preventing both superficial and deep surgical site infections (SSIs) in groin incisions following arterial intervention. Available evidence suggests local antibiotics do not reduce overall SSI rates, but may reduce superficial SSIs, however data are heterogenous and lacking. Subcuticular sutures, as opposed to other methods of closure, appear to reduce SSIs. The cost effectiveness of ciNPWT, and efficacy of local antibiotics (for both superficial and deep SSI) in vascular groin wounds, are research questions that should be addressed with future randomised trials.

JDB

SYSTEMATIC REVIEW

Editor's Choice – Systematic Review and Meta-Analysis of Wound Adjuncts for the Prevention of Groin Wound Surgical Site Infection in Arterial Surgery

- ciNPWT
- Lokale antibiotica
- Wond drain
- Subcuticulaire hechting
- Fibrin glue
- Silver alginaat dressing/bedekking

Vascular Infection

Eur J Vasc Endovasc Surg (2021) 61, 636–646

SYSTEMATIC REVIEW

Editor's Choice – Systematic Review and Meta-Analysis of Wound Adjuncts for the Prevention of Groin Wound Surgical Site Infection in Arterial Surgery

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SYSTEMATIC REVIEW

Editor's Choice – Systematic Review and Meta-Analysis of Wound Adjuncts for the Prevention of Groin Wound Surgical Site Infection in Arterial Surgery

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- Wond drain -> geen duidelijk bewijs SSI reduction
- Fibrin glue -> geen duidelijk bewijs SSI reduction
- Silver alginate dressing -> geen duidelijk bewijs SSI reduction

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SYSTEMATIC REVIEW

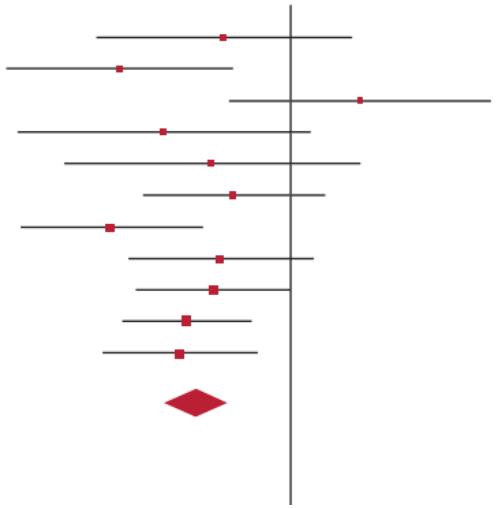
Kenniscentrum Wondzorg

Editor's Choice – Systematic Review and Meta-Analysis of Wound Adjuncts for the Prevention of Groin Wound Surgical Site Infection in Arterial Surgery

ciNPWT

Study or Subgroup	ciNPT Events	ciNPT Total	Standard care Events	Standard care Total	Odds Ratio M-H, Random, 95% CI	Weight
All studies						
Karl 2013[14]	3	50	6	50	0.47 [0.11, 1.99]	6.0%
Matatov 2013[15]	3	52	19	63	0.14 [0.04, 0.51]	7.3%
Koetje 2015[17]	5	40	3	50	2.24 [0.50, 10.00]	5.6%
Sabat 2016[18]	2	30	7	30	0.23 [0.04, 1.24]	4.7%
Flemming 2017[19]	2	73	5	78	0.41 [0.08, 2.19]	4.6%
Lee 2017[20]	7	53	11	49	0.53 [0.19, 1.49]	10.1%
Pleger 2017[21]	5	58	30	71	0.13 [0.05, 0.36]	10.2%
Kwon 2018[24]	6	59	12	60	0.45 [0.16, 1.30]	9.9%
Engelhardt 2018[22]	9	64	19	68	0.42 [0.17, 1.02]	12.7%
Gombert 2018[23]	13	98	30	90	0.31 [0.15, 0.63]	16.2%
Hasselmann 2020[16]	8	78	23	80	0.28 [0.12, 0.68]	12.8%
Total	**63**	**655**	**165**	**689**	**0.34 [0.23, 0.51]**	**100.0%**

Heterogeneity: $Tau^2 = 0.10$; $Chi^2 = 13.16$, df = 10 ($p = .21$); $I^2 = 24\%$
Test for overall effect: Z = 5.45 ($p < .00001$)



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Kenniscentrum Wondzorg

ciNPWT

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All studies			
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Hasselmann 2020[16]	8	0.28 [0.12, 0.68]	12.8%
Total	63	0.34 [0.23, 0.51]	100.0%

Heterogeneity: Tau² = 0.10; *Chi*²
Test for overall effect: Z = 5.45 (

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SYSTEMATIC REVIEW

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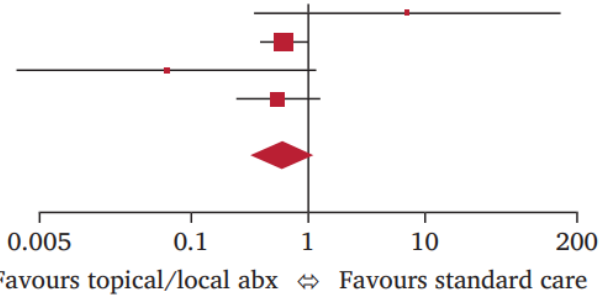
Lokale antibiotica

Study or Subgroup	Topical/local antibiotics Events	Total	Standard care Events	Total	Odds Ratio M-H, Random, 95% CI	Weight
Pitt 1980[25]	3	59	0	56	7.00 [0.35, 138.65]	5.1%
Mohammed 2013[26]	42	243	53	211	0.62 [0.40, 0.98]	53.1%
Costa Almeida 2014[27]	0	30	6	30	0.06 [0.00, 1.15]	5.3%
Wubbeke 2020[28]	11	151	17	137	0.55 [0.25, 1.23]	36.4%
Total	**56**	**483**	**76**	**434**	**0.60 [0.30, 1.21]**	**100.0%**

Heterogeneity: Tau² = 0.19; *Chi*² = 4.98, df = 3 (*p* = .17); I^2 = 40%
Test for overall effect: Z = 1.43 (*p* = .15)



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ciNPWT

From the New England Society for Vascular Surgery

Check for updates

Meta-analysis of prophylactic closed-incision negative pressure wound therapy for vascular surgery groin wounds

Griffin Boll, MD,[a] Peter Callas, PhD,[b] *and* Daniel J. Bertges, MD,[a] *Burlington, Vt*

ABSTRACT

Objective: A previous meta-analysis of randomized controlled trials (RCTs) evaluating the efficacy of closed incision negative pressure wound therapy (ciNPWT) on vascular surgery groin wounds reported a reduction in surgical site infections (SSIs). Our aim was to perform a comprehensive, updated meta-analysis after the largest multicenter RCT on the subject to date reported no benefits from ciNPWT.

Methods: A systematic review identified RCTs that had compared the primary outcome of the incidence of postoperative SSIs of groin incisions treated with ciNPWT or standard dressings. The secondary outcomes included wound dehiscence, a composite incidence of seroma, lymph leakage, and hematoma, the need for reoperation, in-hospital mortality, the need for readmission, and the hospital length of stay. The odds ratios (ORs) were compared across the studies using a random effects meta-analysis. The risk of bias was assessed using the Cochrane risk of bias tool, Harbord test, and trim-and-fill analysis.

Results: Eight RCTs with 1125 incisions (ciNPWT, n = 555 [49.3%]; control, n = 570 [50.7%]) were included. The RCTs included three studies inside and five outside the United States. ciNPWT was associated with a significant reduction in the rate of SSIs (OR, 0.39; 95% confidence interval [CI], 0.24-0.63; $P < .001$). No significant differences were found in the rate of wound dehiscence (OR, 1.11; 95% CI, 0.67-1.83; $P = .68$), composite incidence of seroma, lymph leak, or hematoma (OR, 0.49; 95% CI, 0.13-1.76; $P = .27$), need for reoperation (OR, 0.68; 95% CI, 0.40-1.16; $P = .16$), or need for readmission (OR, 0.60; 95% CI, 0.30-1.21; $P = .15$). It was not possible to quantitatively evaluate in-hospital mortality or the hospital length of stay. The risk of bias assessment identified a high risk of bias for participant blinding in all eight studies, a low risk for randomization and outcome reporting, and variability between studies for the other methods. We found no evidence of publication bias.

Conclusions: Our meta-analysis of pooled data has suggested that prophylactic use of ciNPWT for vascular groin incisions will be associated with reduced rates of SSIs. The greatest benefits were seen in the trials with higher baseline rates of SSIs in the control group. (J Vasc Surg 2022;75:2086-93.)

Keywords: Negative pressure wound therapy; Surgical site infections; Wound complications

Surgical site infections (SSIs) of groin incisions are a major source of patient morbidity leading to increased rates of reintervention, hospital lengths of stay, and, even, mortality after vascular reconstruction.[1,2] SSIs also have a dramatic effect on the financial costs of the healthcare system.[2-4] Specific patient and procedural characteristics such as obesity, female sex, reoperative surgery, infrainguinal bypass, and malnutrition have been identified as risk factors for the development of SSIs.[2,5-10] Bundled "best practice" initiatives to reduce SSIs, including standardized perioperative antibiotic administration, skin preparation, euthermia, euglycemia, and postoperative wound management, have been studied with variable results.[11-13]

Prophylactic use of closed incision negative pressure wound therapy (ciNPWT) has received enthusiasm as a strategy to reduce SSIs for vascular surgery groin wounds. The mechanism of action by which ciNPWT has a beneficial effect is not entirely clear but might be related to application during and maintenance of a sterile environment, improvement in tissue perfusion, reductions in site edema, and reductions in tension across the incision.

Although multiple observational studies and randomized controlled trials (RCTs) have demonstrated variable results regarding the effects of ciNPWT on postoperative SSIs,[14-20] subsequent meta-analyses have suggested

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Author conflict of interest: none.

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Additional material for this article may be found online at www.jvascsurg.org.

Correspondence: Daniel J. Bertges, MD, Department of Surgery, University of Vermont Medical Center, 111 Colchester Ave, Burlington, VT 05401 (e-mail: daniel.bertges@uvmhealth.org).

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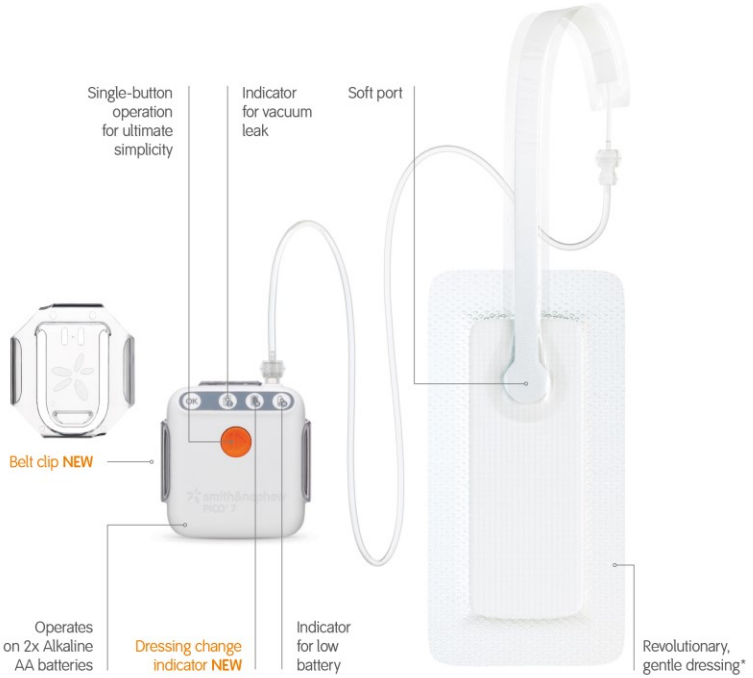

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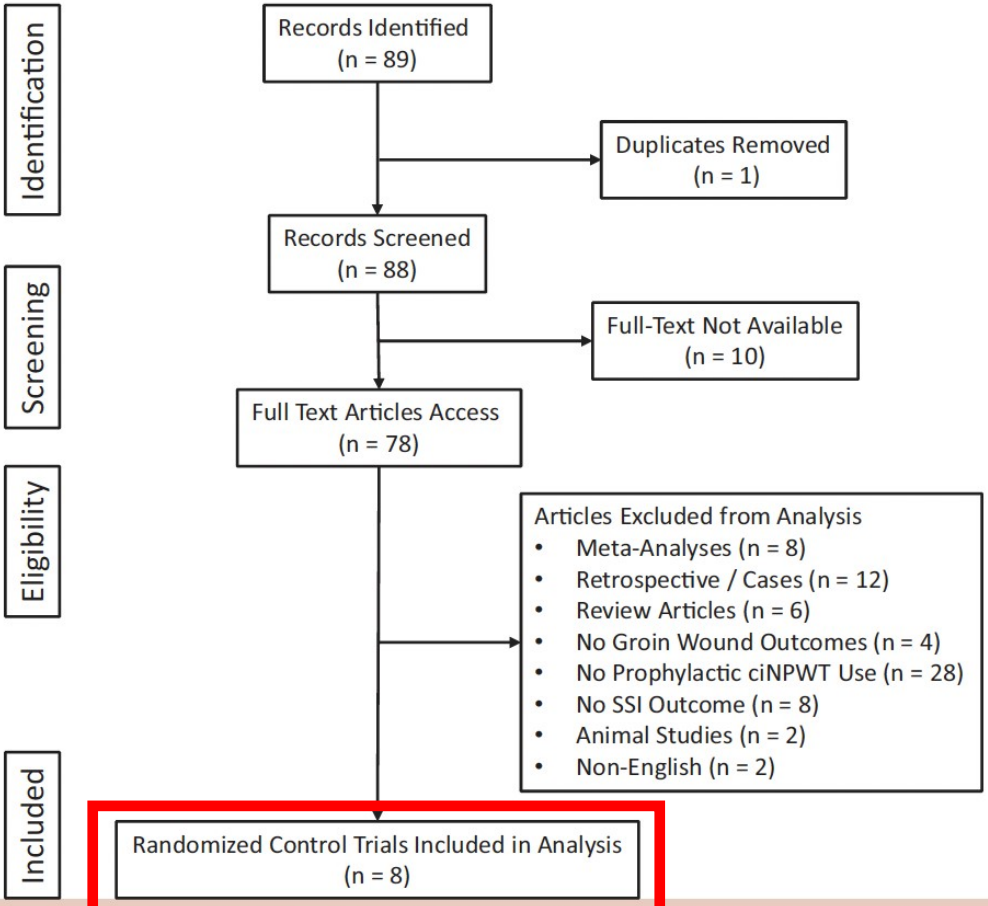

Fig 1. Flow chart of study selection. *ciNPWT*, Closed incision negative pressure wound therapy; *SSI*, surgical site infection.

From the New England Society for Vascular Surgery

Check for updates

Meta-analysis of prophylactic closed-incision negative pressure wound therapy for vascular surgery groin wounds

Griffin Boll, MD,[a] Peter Callas, PhD,[b] *and* Daniel J. Bertges, MD,[a] *Burlington, Vt*

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Results: Eight RCTs with 1125 incisions (ciNPWT, n = 555 [49.3%]; control, n = 570 [50.7%]) were included. The RCTs included three studies inside and five outside the United States. ciNPWT was associated with a significant reduction in the rate of SSIs (OR, 0.39; 95% confidence interval [CI], 0.24-0.63; $P < .001$). No significant differences were found in the rate of wound dehiscence (OR, 1.11; 95% CI, 0.67-1.83; $P = .68$), composite incidence of seroma, lymph leak, or hematoma (OR, 0.49; 95% CI, 0.13-1.76; $P = .27$), need for reoperation (OR, 0.68; 95% CI, 0.40-1.16; $P = .16$), or need for readmission (OR, 0.60; 95% CI, 0.30-1.21; $P = .15$). It was not possible to quantitatively evaluate in-hospital mortality or the hospital length of stay. The risk of bias assessment identified a high risk of bias for participant blinding in all eight studies, a low risk for randomization and outcome reporting, and variability between studies for the other methods. We found no evidence of publication bias.

Conclusions: Our meta-analysis of pooled data has suggested that prophylactic use of ciNPWT for vascular groin incisions will be associated with reduced rates of SSIs. The greatest benefits were seen in the trials with higher baseline rates of SSIs in the control group. (J Vasc Surg 2022;75:2086-93.)

Keywords: Negative pressure wound therapy; Surgical site infections; Wound complications

Surgical site infections (SSIs) of groin incisions are a major source of patient morbidity leading to increased rates of reintervention, hospital lengths of stay, and, even, mortality after vascular reconstruction.[1,2] SSIs also have a dramatic effect on the financial costs of the healthcare system.[2-4] Specific patient and procedural characteristics such as obesity, female sex, reoperative surgery, infrainguinal bypass, and malnutrition have been identified as risk factors for the development of SSIs.[2,5-10] Bundled "best practice" initiatives to reduce SSIs, including standardized perioperative antibiotic administration, skin preparation, euthermia, euglycemia, and postoperative wound management, have been studied with variable results.[11-13]

Prophylactic use of closed incision negative pressure wound therapy (ciNPWT) has received enthusiasm as a strategy to reduce SSIs for vascular surgery groin wounds. The mechanism of action by which ciNPWT has a beneficial effect is not entirely clear but might be related to application during and maintenance of a sterile environment, improvement in tissue perfusion, reductions in site edema, and reductions in tension across the incision.

Although multiple observational studies and randomized controlled trials (RCTs) have demonstrated variable results regarding the effects of ciNPWT on postoperative SSIs,[14-20] subsequent meta-analyses have suggested

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Additional material for this article may be found online at www.jvascsurg.org.

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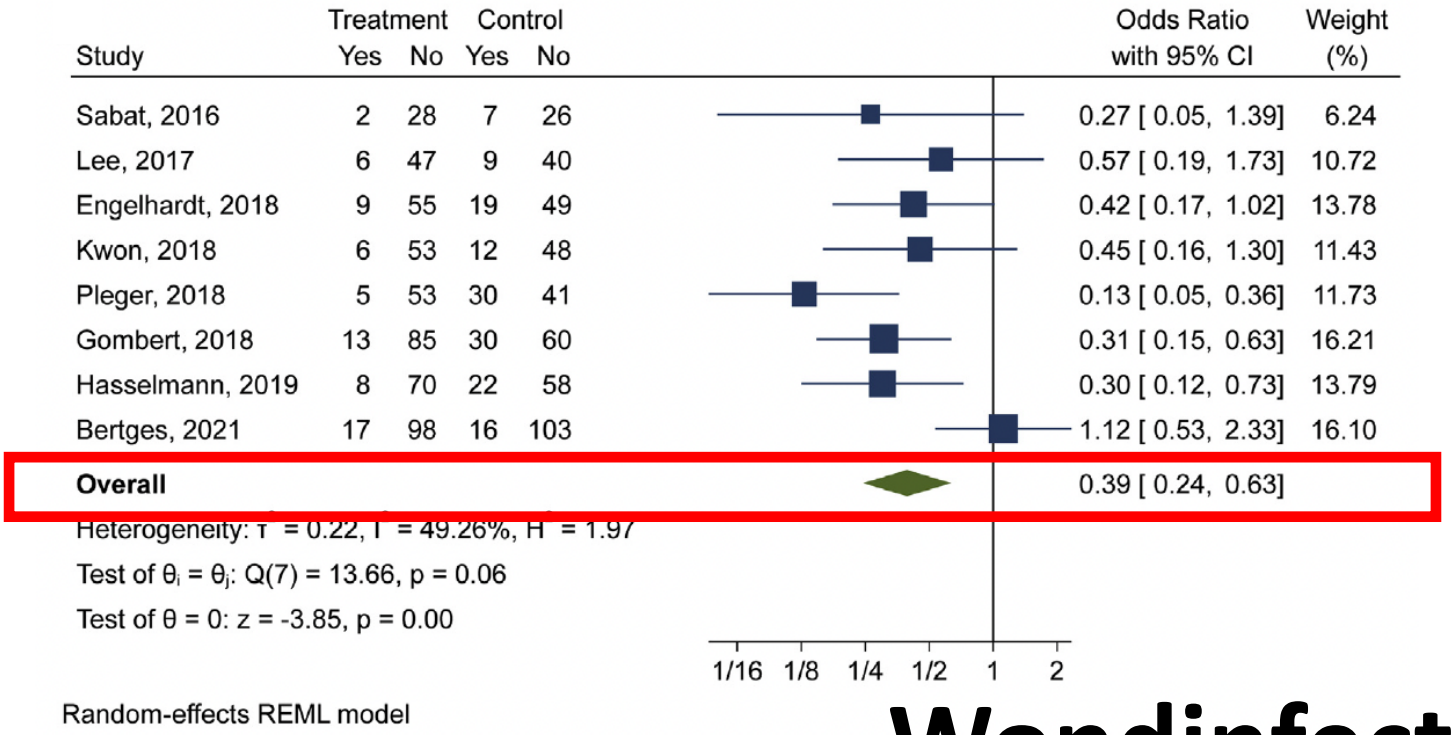
From the New England Society for Vascular Surgery

Kenniscentrum Wondzorg

Meta-analysis of prophylactic closed-incision negative pressure wound therapy for vascular surgery groin wounds

Griffin Boll, MD,[a] Peter Callas, PhD,[b] *and* Daniel J. Bertges, MD,[a] *Burlington, Vt*



Wondinfectie

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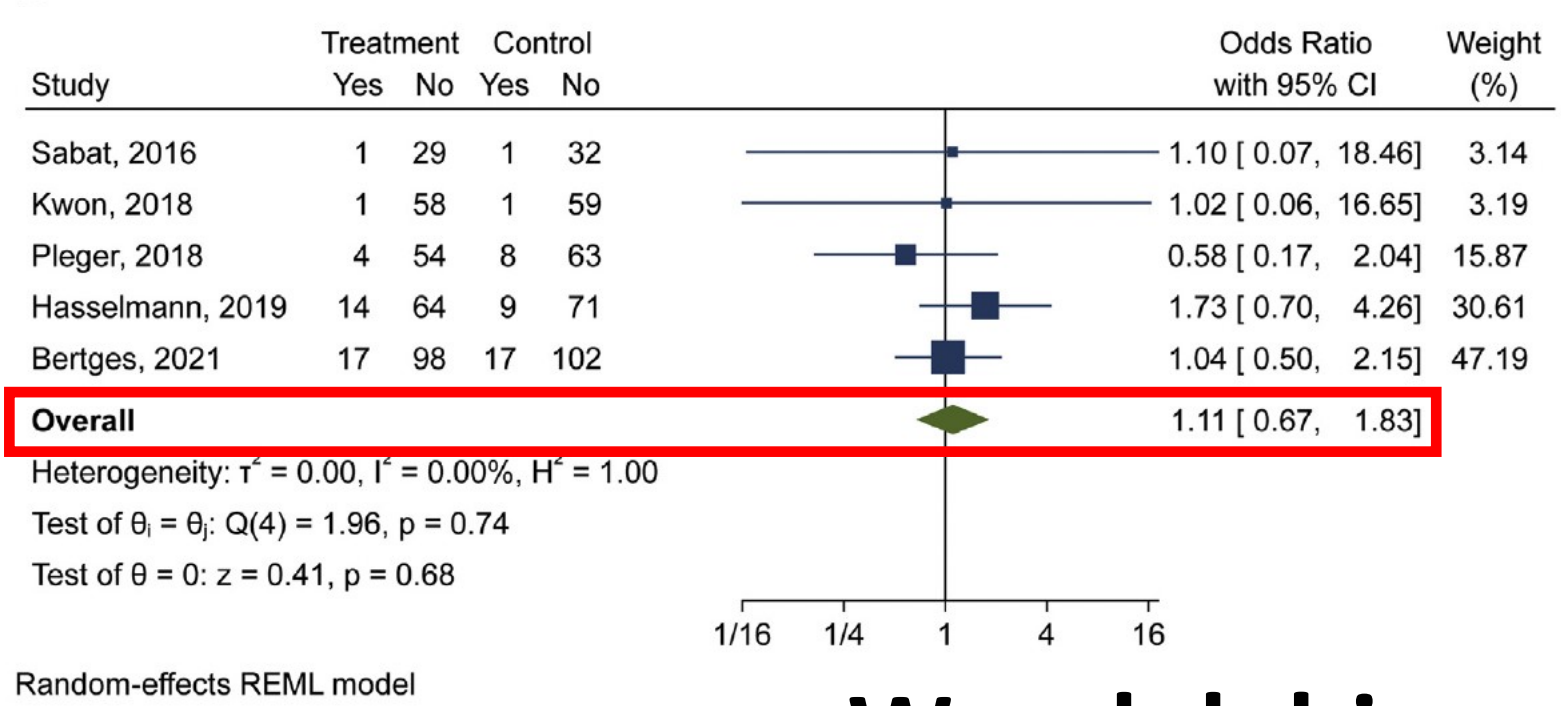

Wond dehiscentie

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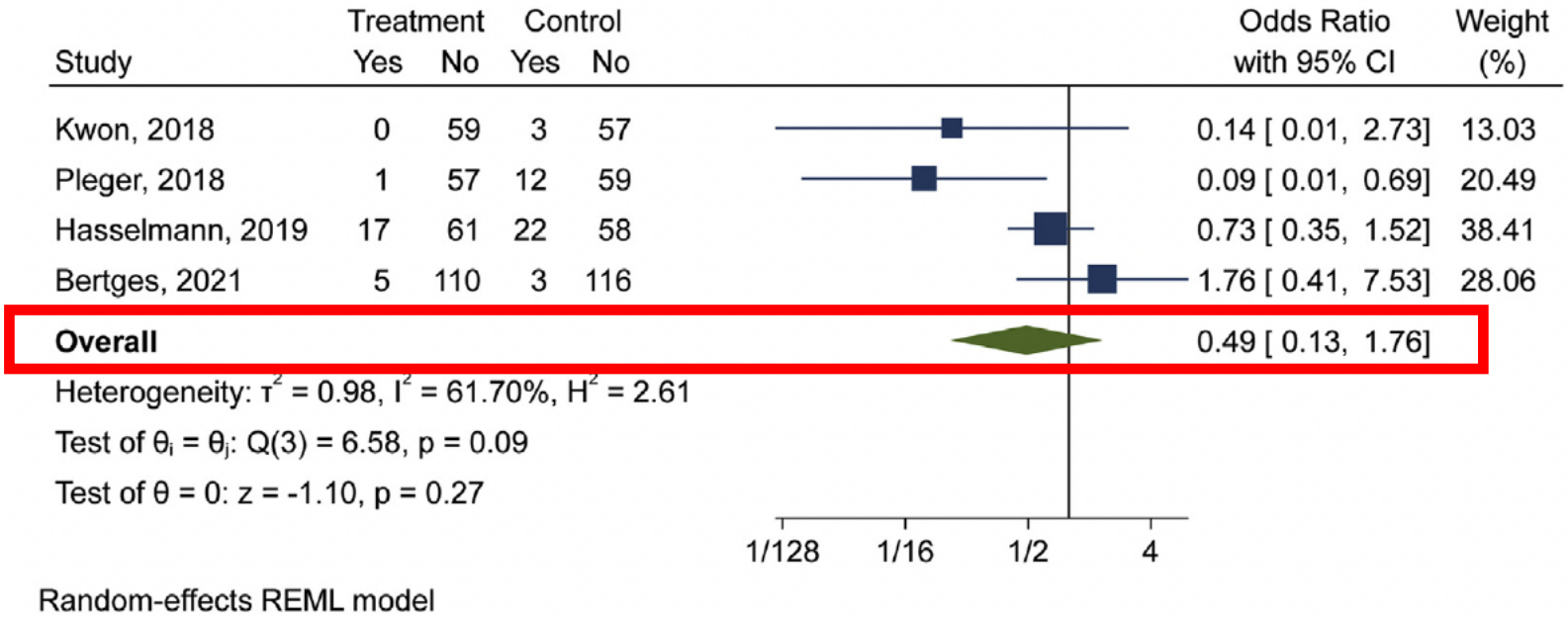

Seroom

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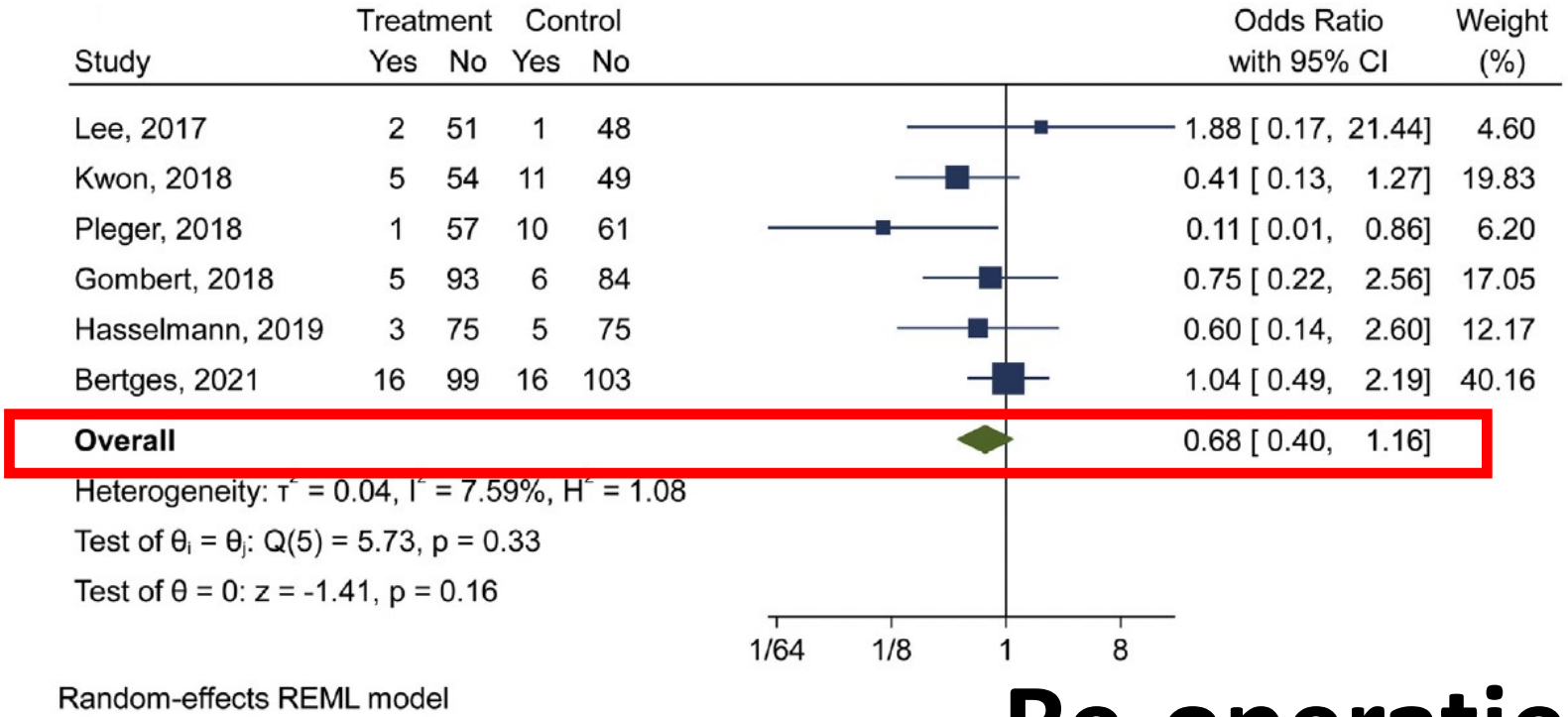

Re-operatie

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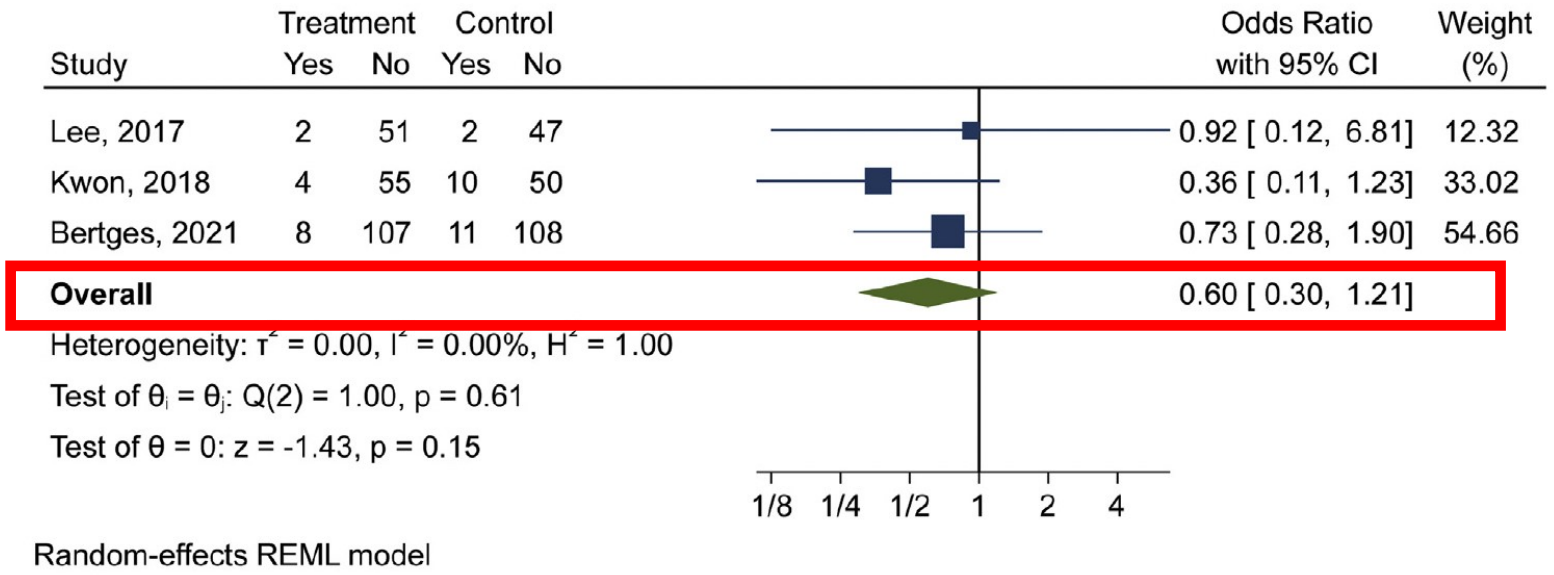

Heropname

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Subcuticulaire hechtingen

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Cochrane Library

Cochrane Database of Systematic Reviews

Subcuticular sutures for skin closure in non-obstetric surgery (Review)

Goto S, Sakamoto T, Ganeko R, Hida K, Furukawa TA, Sakai Y

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Subcuticulaire hechtingen

Review: Subcuticular sutures for skin closure in non-obstetric surgery
Comparison: 2 Subcuticular sutures compared with skin staples
Outcome: 1 Surgical site infection

Study or subgroup	Subcuticular n/N	Skin staples n/N	Risk Ratio M-H,Random,95% CI	Weight	Risk Ratio M-H,Random,95% CI
Chen 2018	8/188	25/188		8.1 %	0.32 [0.15, 0.69]
Chughtai 2000	10/81	17/81		9.3 %	0.59 [0.29, 1.21]
Eggers 2011	5/19	1/19		1.2 %	5.00 [0.64, 38.87]
Imamura 2016	25/198	27/201		17.4 %	0.94 [0.57, 1.56]
Khan 2006	1/64	1/63		0.7 %	0.98 [0.06, 15.40]
Kobayashi 2015	54/620	60/612		32.1 %	0.89 [0.63, 1.26]
Kuroki 2017	5/79	5/83		3.5 %	1.05 [0.32, 3.49]
Mullen 1999	3/38	6/40		2.9 %	0.53 [0.14, 1.96]
Murphy 1995	1/45	1/49		0.7 %	1.09 [0.07, 16.90]
Ranaboldo 1992	1/26	1/22		0.7 %	0.85 [0.06, 12.76]
Selvadurai 1997	0/42	0/38			Not estimable
Shetty 2004	0/47	5/54		0.6 %	0.10 [0.01, 1.84]
Subramanian 2005	1/16	1/16		0.7 %	1.00 [0.07, 14.64]
Tsujinaka 2013	36/558	36/514		21.7 %	0.92 [0.59, 1.44]
Zwart 1989	1/79	0/83		0.5 %	3.15 [0.13, 76.20]
Total (95% CI)	**2100**	**2063**		**100.0 %**	**0.81 [0.64, 1.01]**

Total events: 151 (Subcuticular), 186 (Skin staples)
Heterogeneity: Tau² = 0.01; Chi² = 13.66, df = 13 (P = 0.40); I² =5%
Test for overall effect: Z = 1.86 (P = 0.063)
Test for subgroup differences: Not applicable

0.01 0.1 1 10 100
Favours subcuticular
Favours skin staples

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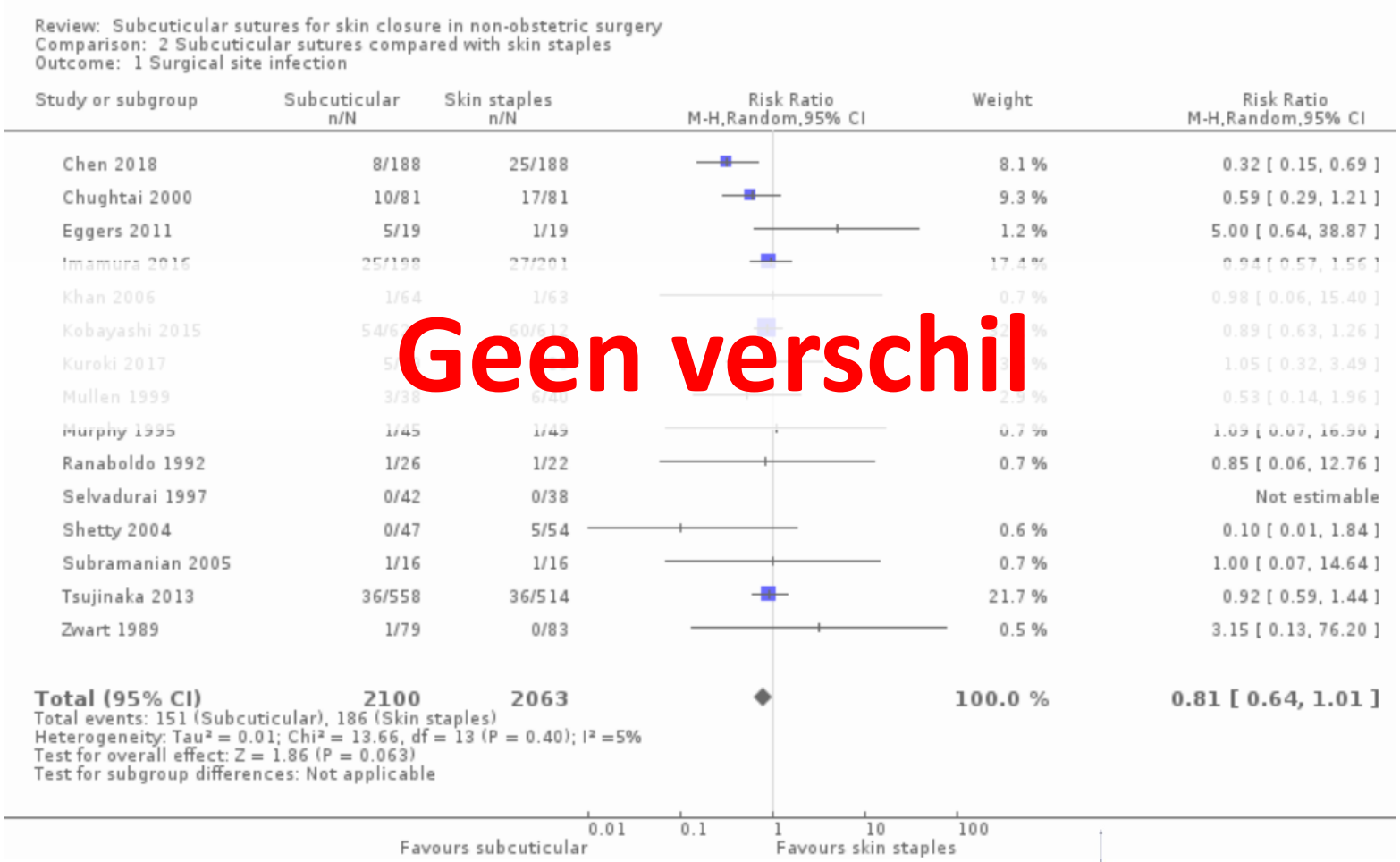
Subcuticulaire hechtingen



Geen verschil

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Royal Australasian College of Surgeons

Kenniscentrum Wondzorg

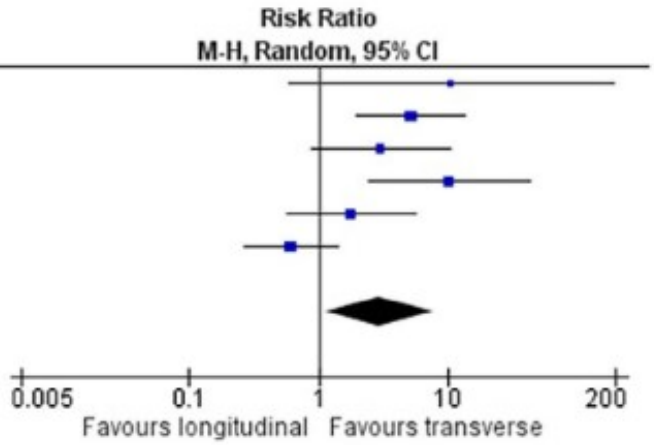
Longitudinal versus transverse incision for common femoral artery exposure: a systematic review and meta-analysis

(a)

Study or Subgroup	Longitudinal Events	Longitudinal Total	Transverse Events	Transverse Total	Weight	Risk Ratio M-H, Random, 95% CI	Year
Chester et al.	5	85	0	82	7.7%	10.62 [0.60, 188.99]	1992
Beirne et al.	20	124	5	160	19.9%	5.16 [1.99, 13.37]	2008
Swinnen et al.	10	61	3	55	17.5%	3.01 [0.87, 10.36]	2010
Parikh et al.	17	71	2	85	16.0%	10.18 [2.43, 42.56]	2017
Siracuse et al.	5	1352	7	3395	18.3%	1.79 [0.57, 5.64]	2018
Bakshi et al.	8	74	11	62	20.7%	0.61 [0.26, 1.42]	2019
Total (95% CI)		**1767**		**3839**	**100.0%**	**2.93 [1.12, 7.70]**	
Total events	65		28				

Heterogeneity: $Tau^2 = 0.99$; $Chi^2 = 18.43$, $df = 5$ ($P = 0.002$); $I^2 = 73\%$

Test for overall effect: $Z = 2.18$ ($P = 0.03$)



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FULL TEXT ARTICLE

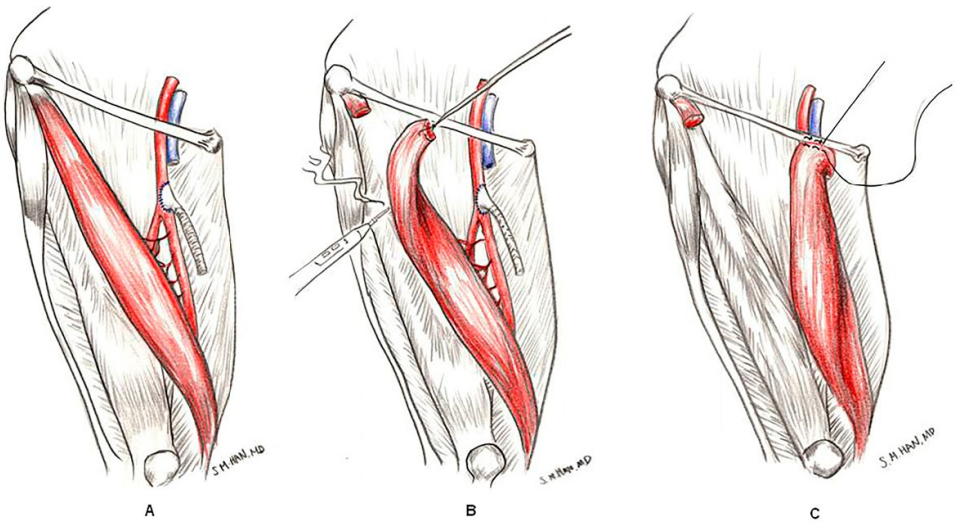
Systematic Review of Groin Incision Surgical Site Infection Preventative Measures in Vascular Surgery

Article in Press: Accepted Manuscript

Justin M. Robbins MD, James Courtney BSBME and Anil Hingorani MD

Journal of Vascular Surgery, Copyright © 2023

Profylactische spierlap zou moeten worden overwogen in hoog-risico chirurgische patiënten bij liesincisie vaatchirurgie



1 (A) The normal anatomy of the sartorius muscle and its relation to the femoral vessels. (B) The sartorius muscle is mo

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Evidence conclusie

- Gebruik veneuze patch indien mogelijk
- Er lijkt evidence voor ciNPWT en dwarse incisie
- Subcuticulaire hechtingen niet echt bij te dragen
- Lokale antibiotica niet bewezen → studies underpowered?
- Hoog risico patienten (redo, kritieke ischemie, wonden, betsraling, kunststof patch) → overweeg spierlap

TAKE HOME MESSAGES

WOND INFECTIE LIES TREEDT VAAK OP 9%

ER ZIJN STRATEGIEN OM TE VOORKOMEN

VENE IS MEER RESISTENT TEGEN INFECTIE

INDIEN HOOG RISICO OVERWEEG SPIERLAP

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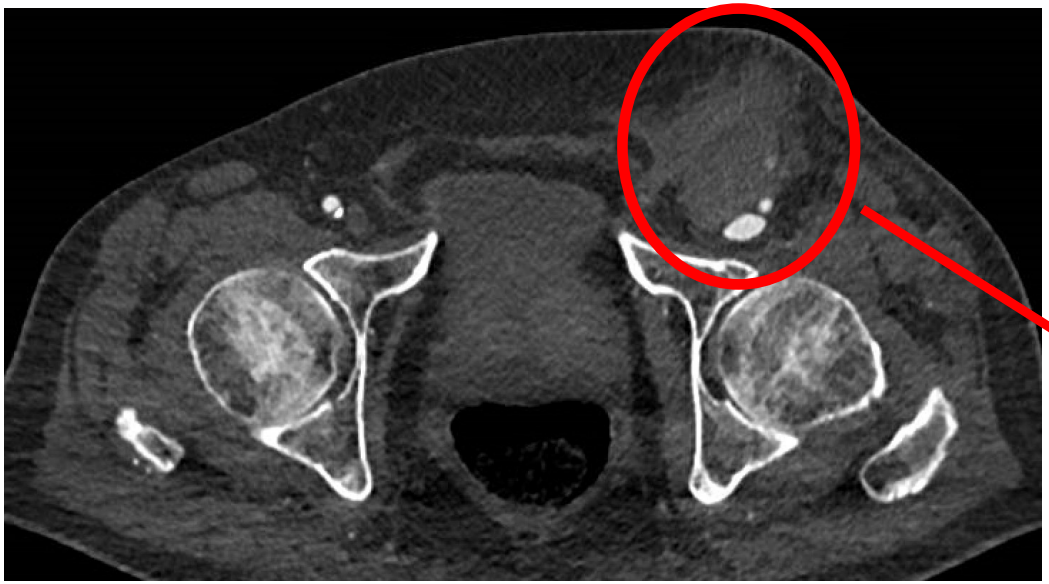
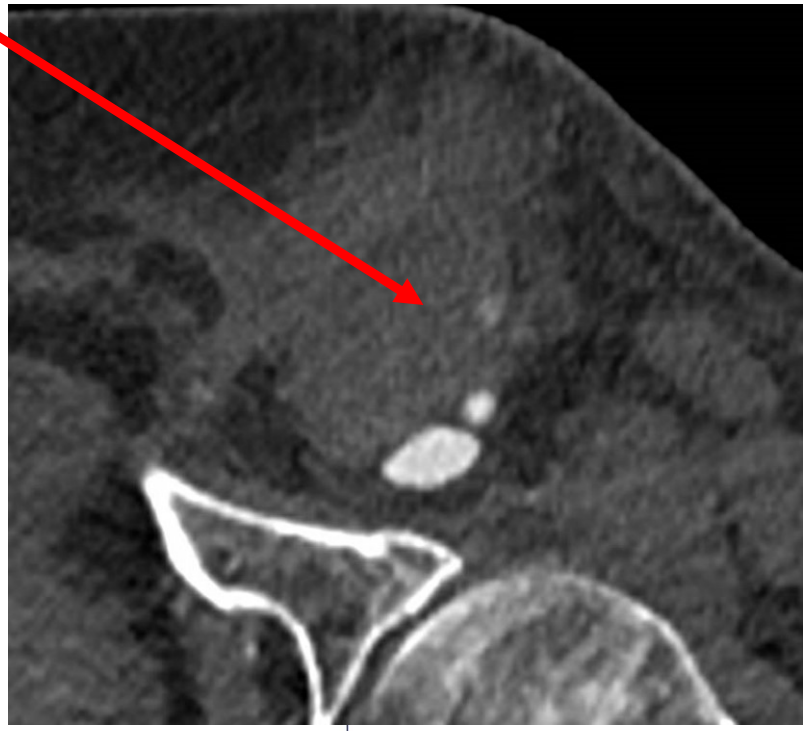
BLOEDING NA VENEUZE PATCH



CFA links bloeding



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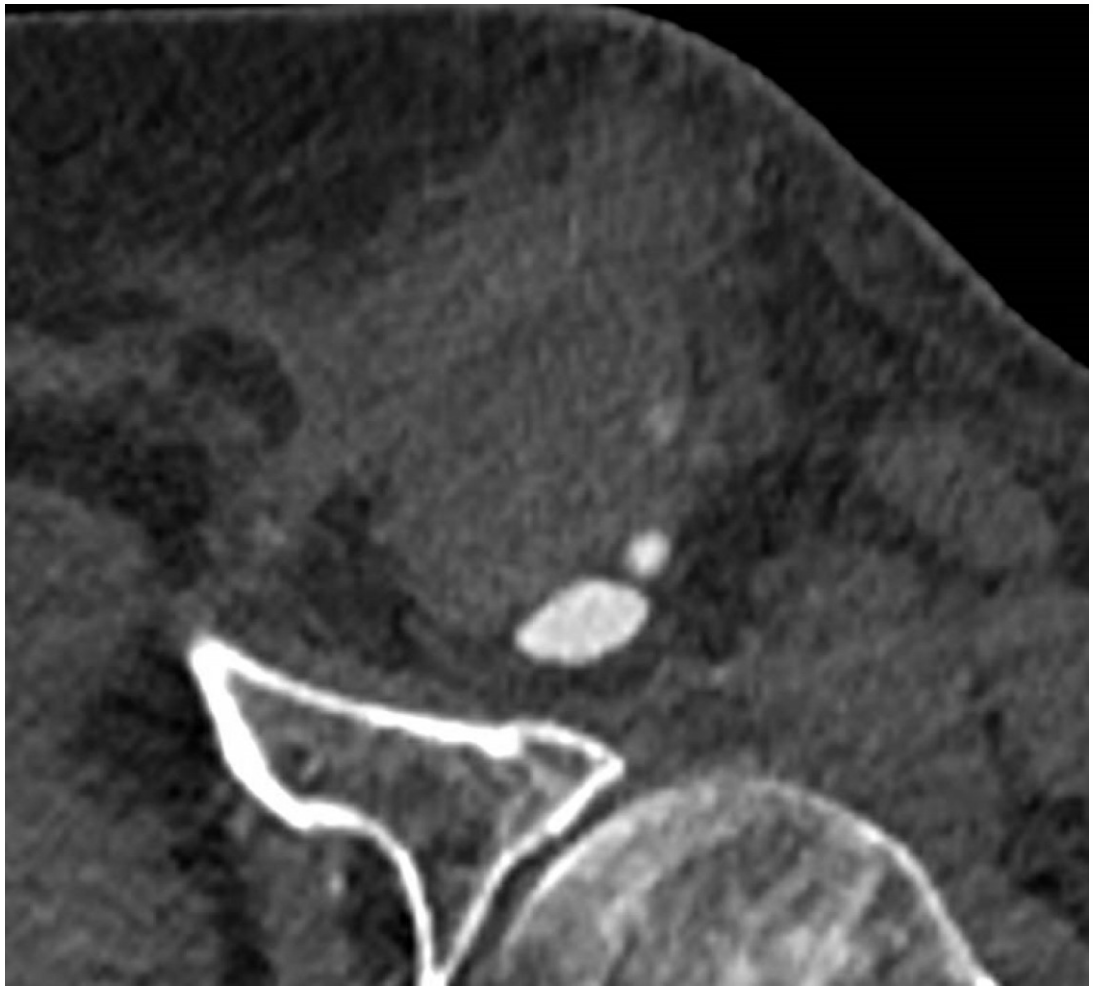

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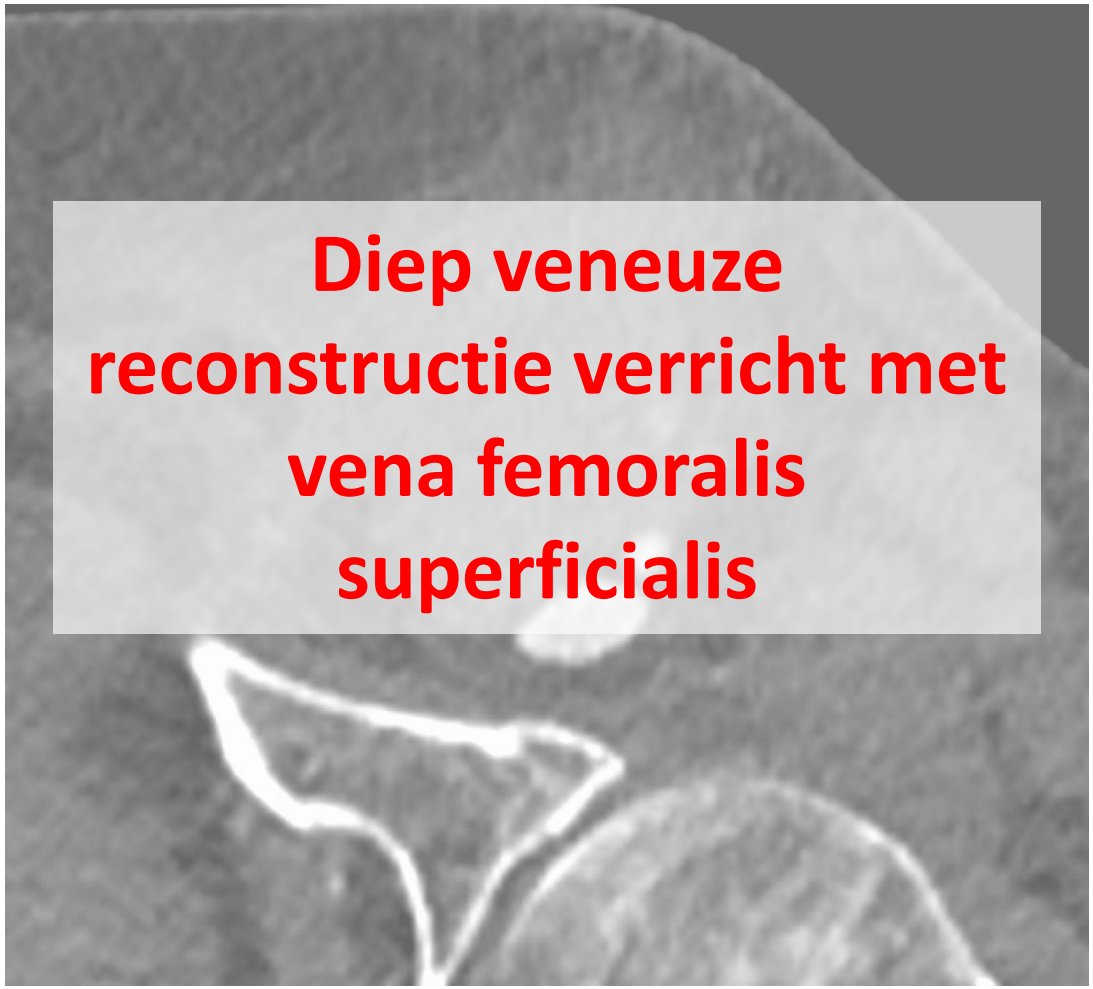

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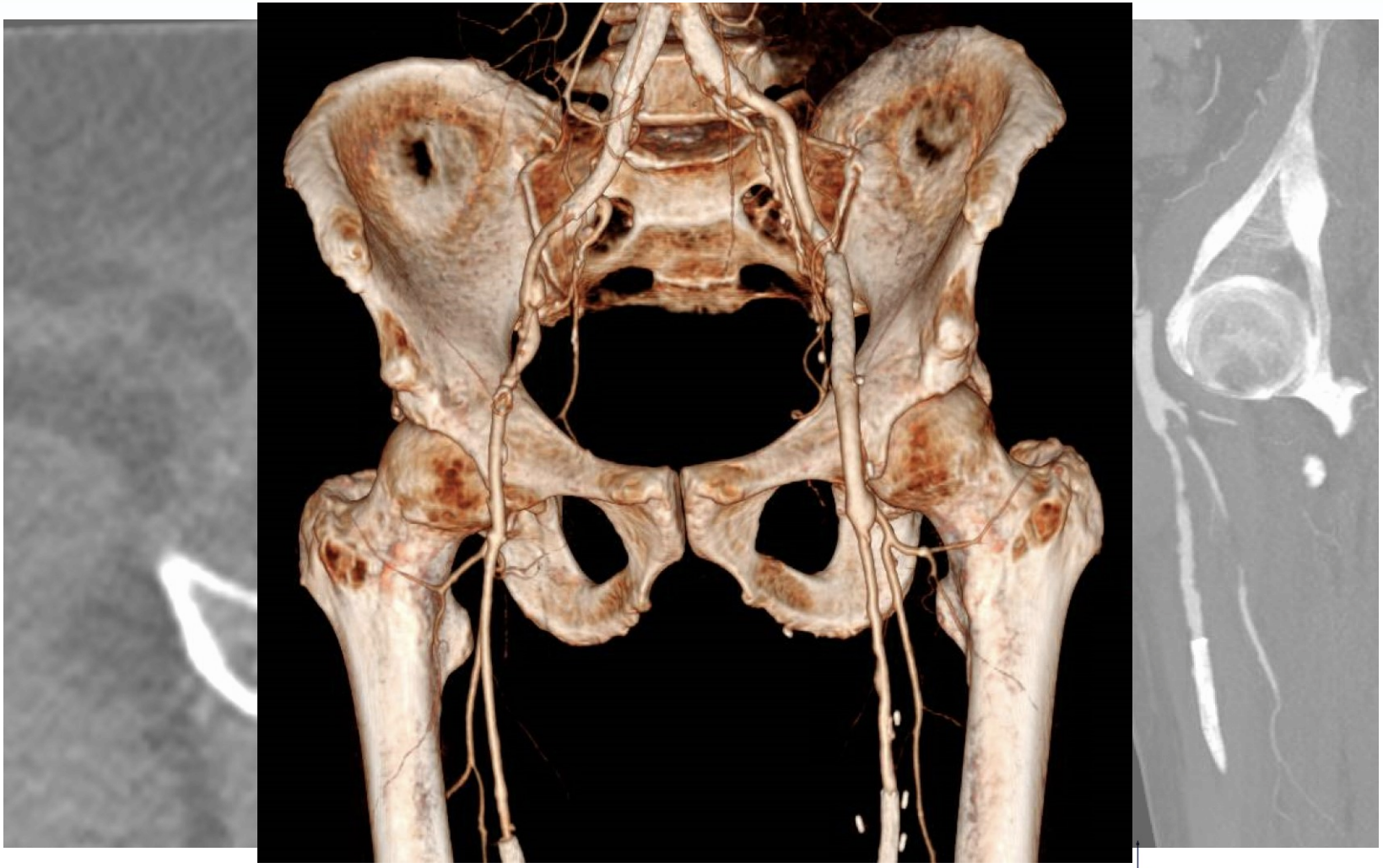

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DISCUSSIE

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