

NKR 34 - Non-surgery versus Arthroscopy for non-traumatic knee pain and joint line tenderness

Review information

Authors

the Danish Health and Medicines Authority¹

¹[Empty affiliation]

Citation example: tDHaMA. NKR 34 - Non-surgery versus Arthroscopy for non-traumatic knee pain and joint line tenderness. Cochrane Database of Systematic Reviews [Year], Issue [Issue].

Characteristics of studies

Characteristics of included studies

Biedert 2000

Methods	
Participants	
Interventions	
Outcomes	
Notes	

Risk of bias table

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	High risk	Randomized by birth date
Allocation concealment (selection bias)	Unclear risk	Not described
Blinding of participants and personnel (performance bias)	Unclear risk	Not described
Blinding of outcome assessment (detection bias)	Unclear risk	Not described
Incomplete outcome data (attrition bias)	High risk	No statements of dropouts or analysis methods.
Selective reporting (reporting bias)	Low risk	
Other bias	High risk	Detection and performance bias

Gauffin 2014

Methods	
Participants	
Interventions	
Outcomes	
Notes	

Risk of bias table

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Unclear risk	no details
Allocation concealment (selection bias)	Low risk	The allocation sequence was concealed from the orthopaedic surgeon that enrolled and assessed participants. The allocations were placed in sequentially numbered, opaque, sealed envelopes in 15 blocks, block size 10. Envelopes were opened after the enrolment by the patient and a nurse.
Blinding of participants and personnel (performance bias)	High risk	Envelopes were opened after the enrolment by the patient and a nurse.
Blinding of outcome assessment (detection bias)	High risk	subjective outcomes (KOOS questionnaire)
Incomplete outcome data (attrition bias)	High risk	ITT analysis. Dropouts equally distributed. However, regarding crossover as dropouts, which is only possible for one group, there is high risk of attrition bias.
Selective reporting (reporting bias)	Low risk	
Other bias	Low risk	

Herrlin 2013

Methods	
Participants	
Interventions	
Outcomes	
Notes	

Risk of bias table

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Unclear risk	no details
Allocation concealment (selection bias)	Unclear risk	no details
Blinding of participants and personnel (performance bias)	High risk	no blinding
Blinding of outcome assessment (detection bias)	High risk	subjective outcomes (KOOS questionnaires)
Incomplete outcome data (attrition bias)	High risk	dropouts equally distributed. However, regarding crossover as dropouts, which is only possible for one group, there is high risk of attrition bias.
Selective reporting (reporting bias)	Low risk	
Other bias	Low risk	

Katz, 2013

Methods	
Participants	
Interventions	
Outcomes	
Notes	

Risk of bias table

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Low risk	Fra Thorlund, 2015
Allocation concealment (selection bias)	Low risk	Fra Thorlund, 2015
Blinding of participants and personnel (performance bias)	High risk	Fra Thorlund, 2015
Blinding of outcome assessment (detection bias)	High risk	Fra Thorlund, 2015
Incomplete outcome data (attrition bias)	High risk	Fra Thorlund, 2015
Selective reporting (reporting bias)	Low risk	Fra Thorlund, 2015
Other bias	Low risk	Fra Thorlund, 2015

Sihvonen 2013

Methods	
Participants	
Interventions	
Outcomes	
Notes	

Risk of bias table

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	High risk	Risk of selection bias
Allocation concealment (selection bias)	Low risk	Fra Thorlund, 2015
Blinding of participants and personnel (performance bias)	Low risk	Fra Thorlund, 2015
Blinding of outcome assessment (detection bias)	Low risk	Fra Thorlund, 2015
Incomplete outcome data (attrition bias)	Low risk	Fra Thorlund, 2015
Selective reporting (reporting bias)	Low risk	Fra Thorlund, 2015
Other bias	Low risk	Fra Thorlund, 2015

Vermesan 2013

Methods	
Participants	
Interventions	
Outcomes	
Notes	

Risk of bias table

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Unclear risk	Fra Khan, 2014
Allocation concealment (selection bias)	Unclear risk	Fra Khan, 2014
Blinding of participants and personnel (performance bias)	High risk	Fra Khan, 2014
Blinding of outcome assessment (detection bias)	High risk	Fra Khan, 2014
Incomplete outcome data (attrition bias)	Unclear risk	Fra Khan, 2014
Selective reporting (reporting bias)	Unclear risk	Fra Khan, 2014
Other bias	Unclear risk	Fra Khan, 2014

Yim, 2013

Methods	
Participants	
Interventions	
Outcomes	
Notes	

Risk of bias table

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Unclear risk	Fra Thorlund, 2015
Allocation concealment (selection bias)	High risk	Fra Thorlund, 2015
Blinding of participants and personnel (performance bias)	High risk	Fra Thorlund, 2015
Blinding of outcome assessment (detection bias)	High risk	Fra Thorlund, 2015
Incomplete outcome data (attrition bias)	High risk	Fra Thorlund, 2015
Selective reporting (reporting bias)	Unclear risk	Fra Thorlund, 2015
Other bias	Low risk	Fra Thorlund, 2015

Footnotes

References to studies

Included studies

Biedert 2000

[Empty]

Gauffin 2014

[Empty]

Herrlin 2013

[Empty]

Katz, 2013

[Empty]

Sihvonen 2013

[Empty]

Vermesan 2013

[Empty]

Yim, 2013

[Empty]

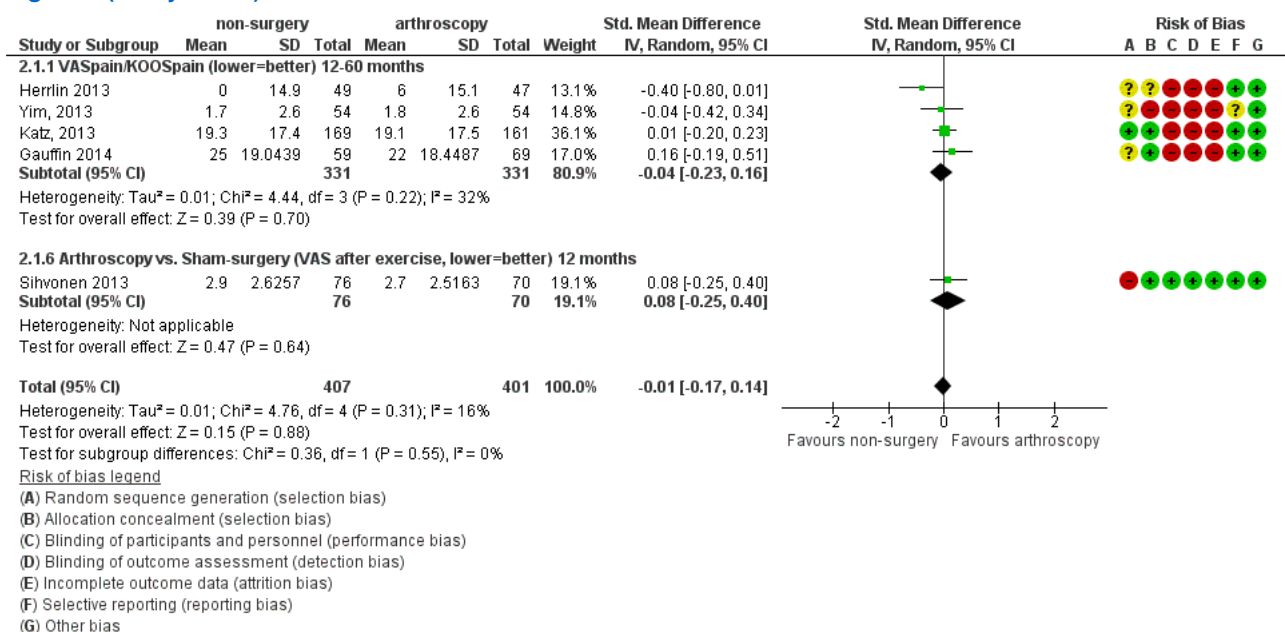
Data and analyses

2 Non-sugery vs. Arthroscopy

Outcome or Subgroup	Studies	Participants	Statistical Method	Effect Estimate
2.1 Pain	5	808	Std. Mean Difference (IV, Random, 95% CI)	-0.01 [-0.17, 0.14]
2.1.1 VASpain/KOOSpain (lower=better) 12-60 months	4	662	Std. Mean Difference (IV, Random, 95% CI)	-0.04 [-0.23, 0.16]
2.1.6 Arthroscopy vs. Sham-surgery (VAS after exercise, lower=better) 12 months	1	146	Std. Mean Difference (IV, Random, 95% CI)	0.08 [-0.25, 0.40]
2.2 Function	3	556	Std. Mean Difference (IV, Random, 95% CI)	0.07 [-0.10, 0.23]
2.2.4 WOMACfunction/KOOSadl (lower=better) 12-60 months	3	556	Std. Mean Difference (IV, Random, 95% CI)	0.07 [-0.10, 0.23]
2.3 Health related Quality of Life	3	372	Std. Mean Difference (IV, Random, 95% CI)	0.08 [-0.13, 0.29]
2.3.1 KOOSqol (lower=better) 12-60 months	2	226	Std. Mean Difference (IV, Random, 95% CI)	0.16 [-0.12, 0.44]
2.3.4 Arthroscopy vs. Sham-surgery (WOMET, lower=better) 12 months	1	146	Std. Mean Difference (IV, Random, 95% CI)	-0.05 [-0.38, 0.27]
2.4 Sick leave	0	0	Mean Difference (IV, Fixed, 95% CI)	Not estimable
2.5 Work retention	0	0	Mean Difference (IV, Random, 95% CI)	Not estimable
2.6 Symptoms	2	226	Mean Difference (IV, Random, 95% CI)	0.59 [-5.23, 6.41]
2.6.3 KOOSsymptoms (lower=better) 12-60 months	2	226	Mean Difference (IV, Random, 95% CI)	0.59 [-5.23, 6.41]
2.7 Muscle strength	0	0	Mean Difference (IV, Random, 95% CI)	Not estimable
2.8 Symptoms	1	146	Risk Ratio (M-H, Random, 95% CI)	0.94 [0.82, 1.07]
2.8.1 Arthroscopy vs. sham-surgery (Global Impression of Change; improvement) 12 months	1	146	Risk Ratio (M-H, Random, 95% CI)	0.94 [0.82, 1.07]
2.9 Serious Adverse Events	3	537	Risk Ratio (M-H, Random, 95% CI)	0.97 [0.37, 2.55]
2.9.1 SAEs (cardiovascular, paresthesia, additional surgery) 12-38 months	2	391	Risk Ratio (M-H, Random, 95% CI)	0.62 [0.16, 2.41]
2.9.5 Arthroscopy vs. sham-surgery (infection, additional surgery) 12 months	1	146	Risk Ratio (M-H, Random, 95% CI)	1.54 [0.38, 6.19]

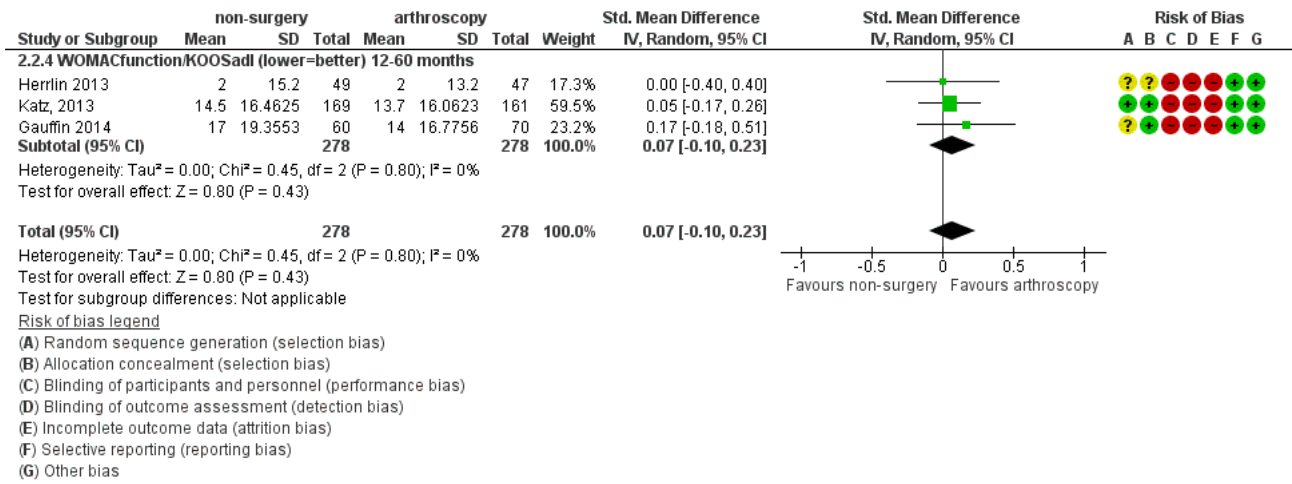
Figures

Figure 1 (Analysis 2.1)



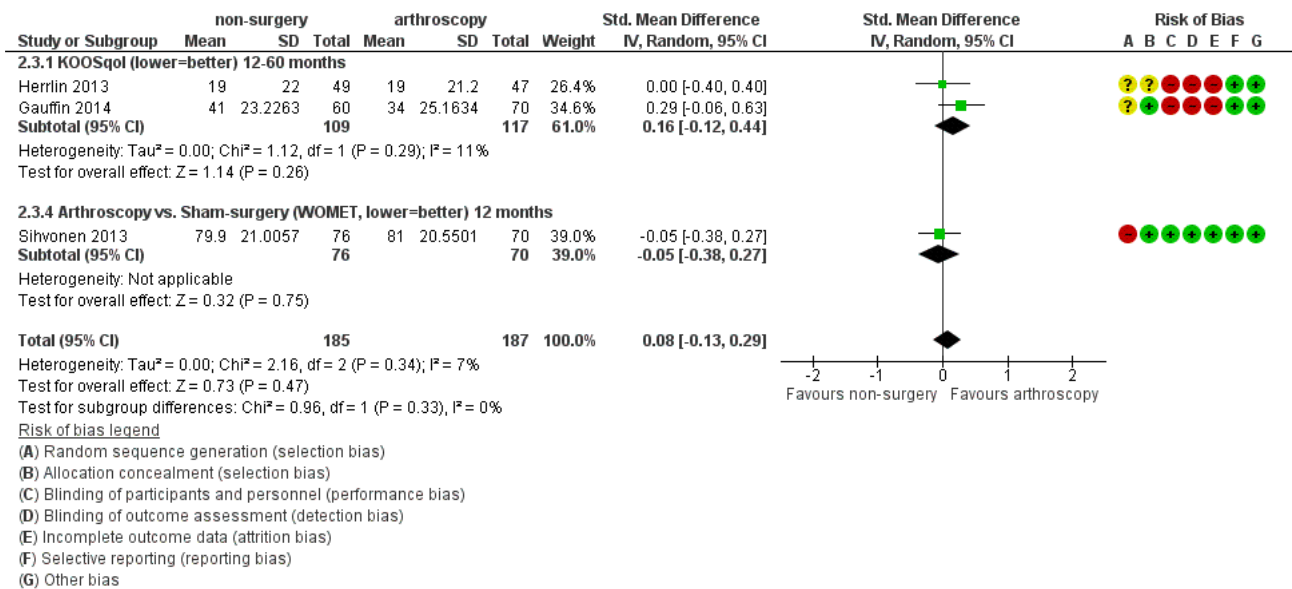
Forest plot of comparison: 2 Non-sugery vs. Arthroscopy, outcome: 2.1 Pain.

Figure 2 (Analysis 2.2)



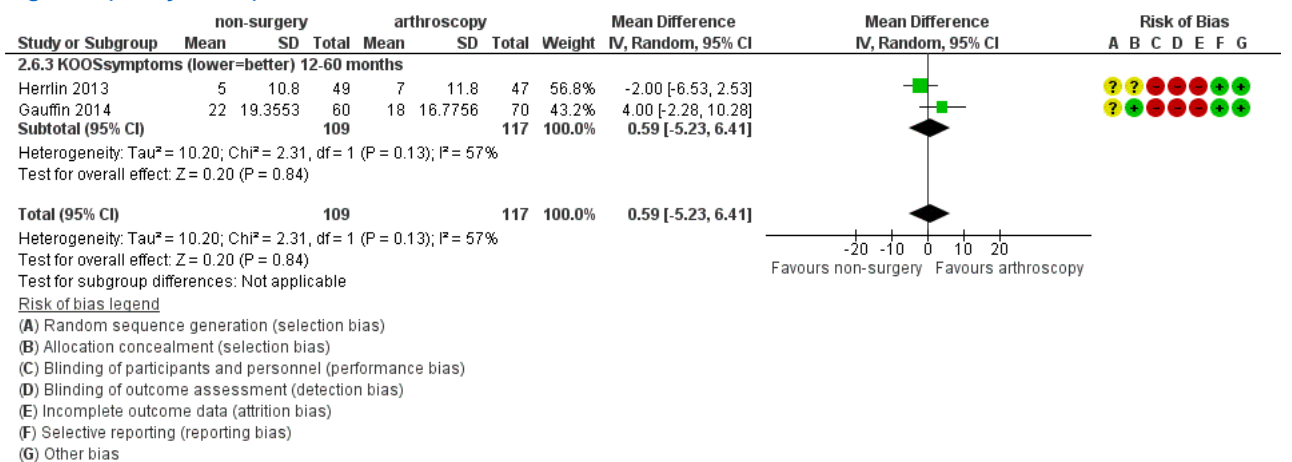
Forest plot of comparison: 2 Non-surgery vs. Arthroscopy, outcome: 2.2 Function.

Figure 3 (Analysis 2.3)



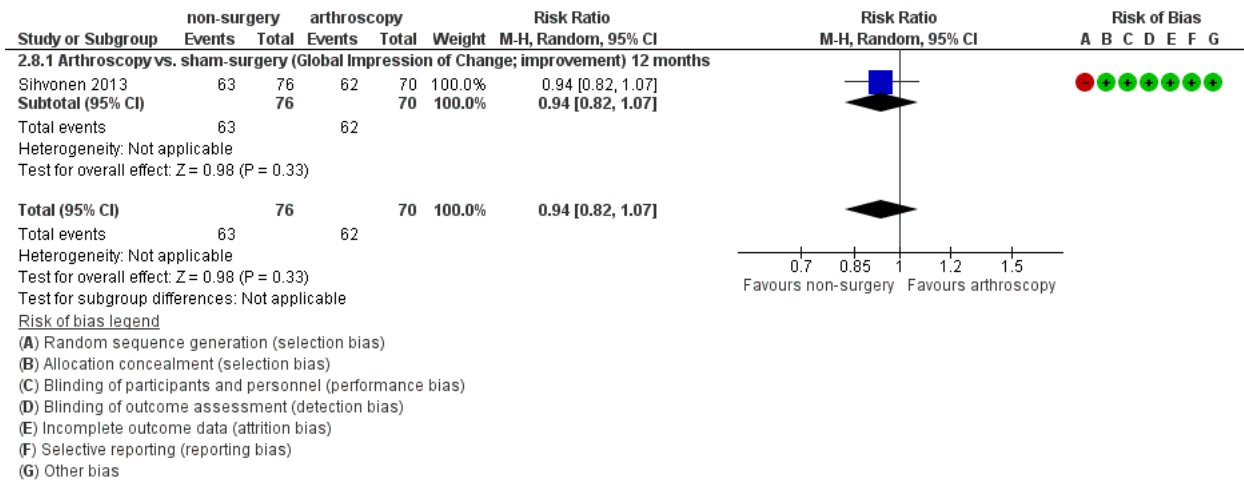
Forest plot of comparison: 2 Non-surgery vs. Arthroscopy, outcome: 2.3 Health related Quality of Life.

Figure 4 (Analysis 2.6)



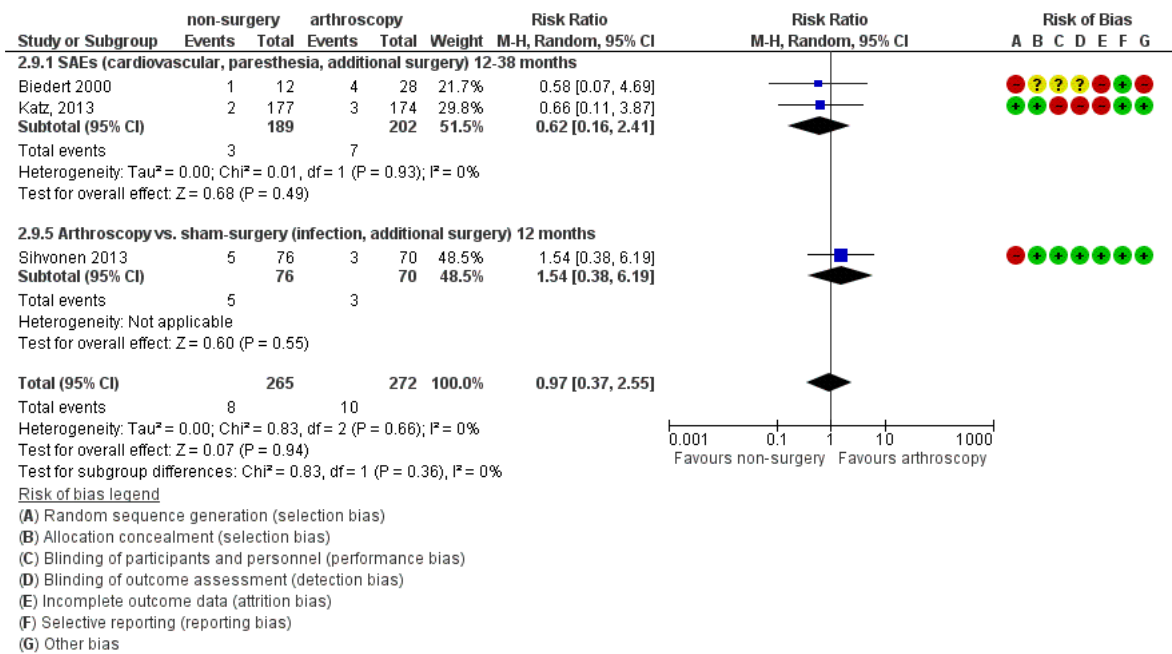
Forest plot of comparison: 2 Non-surgery vs. Arthroscopy, outcome: 2.6 Symptoms.

Figure 5 (Analysis 2.8)



Forest plot of comparison: 2 Non-surgery vs. Arthroscopy, outcome: 2.8 Symptoms.

Figure 6 (Analysis 2.9)



Forest plot of comparison: 2 Non-surgery vs. Arthroscopy, outcome: 2.9 Serious Adverse Events.