NKR 31 PICO 3 Tonsillektomi ved obstruktive symptomer

Review information

Authors

Sundhedstyrelsen[1]

[1]Sundhedsstyrelsen

Citation example: S. NKR 31 PICO 3 Tonsillektomi ved obstruktive symptomer. Cochrane Database of Systematic Reviews [Year], Issue [Issue].

Contact person

[Empty name]

Dates

Assessed as Up-to-date:	
Date of Search:	
Next Stage Expected:	
Protocol First Published:	Not specified
Review First Published:	Not specified
Last Citation Issue:	Not specified

What's new

Date / Event	Description

History

Date / Event	Description

Characteristics of studies

Characteristics of included studies

Bitar 2008

Methods	**Study design:** Randomized controlled trial **Study grouping:** Parallel group **Open Label:** YES **Cluster RCT:**
Participants	**Baseline Characteristics** Intervention (tonsillotomi) ● *Age, mean (sd)*: 3.76 (1.34) ● *Males, %*: 48 ● *Sample size, n*: 77 Control (tonsillektomi) ● *Age, mean (sd)*: 3.76 (1.34) ● *Males, %*: 48 ● *Sample size, n*: 77 **Included criteria:** children suffering from obstructive symptomsdue to tonsillar hyperplasia and presenting to the PediatricOtolaryngology clinic in an academic referral medicalcenter **Excluded criteria:** a history of recurrent tonsillitis reaching an indicationfor surgery (i.e.[7 episodes/year over 1 year;[5 episodes/year for 2 years or[3 episodes/year over 3 years); craniofacial abnormality; bleeding tendency; immune-deficiency suspected tumor
Interventions	**Intervention Characteristics** Intervention (tonsillotomi) ● *Number of surgeons, n*: ● *Surgical technique*: Microdebrider-assisted partial tonsillectomy

	● *Surgical time (minutes), mean(sd)*: 14.8 (3.8) ● *Fraction of tonsil removed, %*: Protruding part ● *Adenectomy, %*: 86 Control (tonsillektomi) ● *Number of surgeons, n*: ● *Surgical technique*: Electrocautery-assisted total tonsillectomy ● *Surgical time (minutes), mean(sd)*: 15.4 (5.1) ● *Fraction of tonsil removed, %*: 100 ● *Adenectomy, %*: 68
Outcomes	*Post-operative pain, days untill painfree* ● **Outcome type**: ContinuousOutcome ● **Measure names**: ["Baseline", "0-30 days follow up"] ● **Unit of measure**: Days ● **Direction**: Lower is better ● **Data value**: Endpoint *Resume of normal diet* ● **Outcome type**: ContinuousOutcome ● **Measure names**: ["Baseline", "0-30 days follow up"] ● **Unit of measure**: days ● **Direction**: Lower is better ● **Data value**: Endpoint *Return to daily activities* ● **Outcome type**: ContinuousOutcome ● **Measure names**: ["Baseline", "0-30 days follow up"] ● **Unit of measure**: days ● **Direction**: Lower is better ● **Data value**: Endpoint *Primary haemorage (primær reblødning)* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"]

- **Unit of measure**: n
- **Direction**: Lower is better
- **Data value**: Endpoint

Secundary haemorage (sekundær reblødning)

- **Outcome type**: DichotomousOutcome
- **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"]
- **Unit of measure**: n
- **Direction**: Lower is better
- **Data value**: Endpoint

Relief of symptoms (remission af symptomer)

- **Outcome type**: DichotomousOutcome
- **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"]
- **Direction**: Higher is better
- **Data value**: Endpoint

Regrowth of tonsil (tonsilvækst ved follow-up)

- **Outcome type**: DichotomousOutcome
- **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"]
- **Direction**: Lower is better
- **Data value**: Endpoint

Readmission because of pain (genindlæggelser pga. smereter)

- **Outcome type**: DichotomousOutcome
- **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"]
- **Direction**: Lower is better
- **Data value**: Endpoint

Readmission because of dehydration (genindlæggelser pga. dehydrering)

- **Outcome type**: DichotomousOutcome
- **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"]
- **Direction**: Lower is better
- **Data value**: Endpoint

Identification	**Sponsorship source:** none **Country:** Libanon **Setting:** o the Pediatric Otolaryngology clinic in an academic referral medical center **Comments:** **Authors name:** Mohamed A. Bitar Æ Charbel Rameh **Institution:** American University of Beirut **Email:** **Address:**
Notes	

Risk of bias table

Bias	Authors' judgement	Support for judgement
Sequence Generation	High risk	Quote: "The children were then randomized to undergo either one, on alternating basis, unless the parents objected and preferred the other technique." Judgement Comment: Since the children were randomized on alternating basis the risk os bias is high
Allocation concealment	High risk	Judgement Comment: they used alternating randomization - no concealment
Blinding of participants and personnel	High risk	Quote: "unless the parents objected and preferred the other technique. The" Judgement Comment: no blinding
Blinding of outcome assessors	Low risk	Judgement Comment: outcome measurement is not likely to be influenced by lack of blinding;
Incomplete outcome data	Unclear risk	Judgement Comment: No drop outs reported.20 month follow up tonsillotomi gruppe
Selective outcome reporting	Low risk	Judgement Comment: alle expected outcomes are reported
Other sources of bias	Low risk	Judgement Comment: it appears to be free of other sources of bias

Chan 2004

Methods	**Study design:** Randomized controlled trial **Study grouping:** Parallel group **Open Label:** **Cluster RCT:**
Participants	**Baseline Characteristics** Intervention (tonsillotomi) ● *Age, mean (sd)*: 6.4(2.8) ● *Males, %*: 59 ● *Sample size, n*: 27 Control (tonsillektomi) ● *Age, mean (sd)*: 6.4(2.8) ● *Males, %*: 59 ● *Sample size, n*: 27 **Included criteria:** Longer than a 6-month history of obstructive symptoms, reported 2 or fewer episodes of streptococcal pharyngitis per year, and had physical findingsconsistent with tonsillar hypertrophy **Excluded criteria:** Excluded patients had active pharyngitis, priortonsillar surgery, a history of a peritonsillar abscess, systemic diseases, suggestion of a tonsillar neoplasm, coagulopathy, or a craniofacial anomaly, or were judged unable to convey pain or discomfort to the caregiver
Interventions	**Intervention Characteristics** Intervention (tonsillotomi) ● *Number of surgeons, n*: ● *Surgical technique*: Intracapsular tonsillectomy was defined as removalof the tonsillar tissue without violating the capsule. Althoughthe exact amount of tonsillar tissue removed could notbe accurately measured, it was estimated that approximately 90%or more of the total amount was removed. The intracapsular tonsillectomywas performed using a wand (EVac 70 Plasma Wand;ArthroCare Corp, Sunnyvale, Calif); no adjunctive cauterizationdevice was used unless it was clinically necessary ● *Surgical time (minutes), mean(sd)*: 19.5(10.9) ● *Fraction of tonsil removed, %*: 90 ● *Adenectomy, %*:

	Control (tonsillektomi) ● *Number of surgeons, n*: ● *Surgical technique*: Patients in thetotal tonsillectomy group underwent standard monopolar electrosurgicaldissection with suction cautery hemostasis as necessary.Any adenoidectomy was performed using an adenotome withsuction cautery for hemostasis. All patients were kept in the postanesthesiaunit until adequately hydrated and recovered, as notedby the nursing staff. T ● *Surgical time (minutes), mean(sd)*: 11.2(8.7) ● *Fraction of tonsil removed, %*: ● *Adenectomy, %*:
Outcomes	*Post-operative pain, days untill painfree* ● **Outcome type**: ContinuousOutcome ● **Measure names**: ["Baseline", "0-30 days follow up"] *Resume of normal diet* ● **Outcome type**: ContinuousOutcome ● **Measure names**: ["Baseline", "0-30 days follow up"] *Return to daily activities* ● **Outcome type**: ContinuousOutcome ● **Measure names**: ["Baseline", "0-30 days follow up"] *Primary haemorage (primær reblødning)* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"] *Secundary haemorage (sekundær reblødning)* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"] *Relief of symptoms (remission af symptomer)* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"] *Regrowth of tonsil (tonsilvækst ved follow-up)* ● **Outcome type**: DichotomousOutcome

	● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"] *Readmission because of pain (genindlæggelser pga. smereter)* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"] *Readmission because of dehydration (genindlæggelser pga. dehydrering)* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"]
Identification	**Sponsorship source:** Dr Yaremchuk has received an honorarium from ArthroCare Corp for participating in an expert advisory panel, and Dr Lee has received honorariafrom ENTec for conducting grand rounds and participating in a scientific advisory boardmeeting. **Country:** Usa **Setting:** **Comments:** **Authors name:** Chan, 2004 **Institution:** Departments of Otolaryngology– Head and Neck Surgery, University of Colorado School of Medicine **Email:** chan.kennyh@tchden .org **Address:** Kenny H. Chan, MD, Department ofPediatric Otolaryngology, The Children's Hospital, 1056 E 19th Ave, Denver, CO 80218
Notes	*Tina Povlsen* on 21/07/2015 22:31 **Continuous Outcomes** Free from pain, reported as median:Intracapsular tonsillectomy: 6.5 daysTotal tonsillectomy: 10.0 days.Returned to normal diet, reported as median:Intracapsular tonsillectomy: 4.4 daysTotal tonsillectomy: 7,5 daysReturned to normal normal activity, reported as median:Intracapsular tonsillectomy: 4.1 daysTotal tonsillectomy: 8,0 days

Risk of bias table

Bias	Authors' judgement	Support for judgement
Sequence Generation	Low risk	Quote: "Study participants were ran- domly assigned (1:1 ratio) to undergo either intracapsular ton- sillectomy using low-temperature plasma excision or total ton- sillectomy using conventional electrosurgery. Assignment was conducted by coin toss, in blocks of 6 (3:3 ratio)."
Allocation concealment	Low risk	Quote: "The sponsor maintained the randomization schedule"
Blinding of participants and personnel	Unclear risk	Judgement Comment: Not described
Blinding of outcome assessors	Unclear risk	Judgement Comment: Not described
Incomplete outcome data	High risk	Judgement Comment: No flow chart, no description of dropouts or description of they have used intention to treat analysis or as treated analysis.
Selective outcome reporting	Low risk	Judgement Comment: All outcomes are assesed
Other sources of bias	Low risk	

Chang 2005

Methods	**Study design:** Randomized controlled trial **Study grouping:** Parallel group **Open Label:** **Cluster RCT:**
Participants	**Baseline Characteristics** Intervention (tonsillotomi) ● *Age, mean (sd)*: 6.4(3.5) ● *Males, %*: 56 ● *Sample size, n*: 52 Control (tonsillektomi) ● *Age, mean (sd)*: 6.4(3.5) ● *Males, %*: 56

	● *Sample size, n*: 52 **Included criteria:** Children scheduled to have tonsillectomy and adenoidectomy for obstructive slepp apnea or sleep-disordered breathing were recruited into the study. **Excluded criteria:** Patients with significant comorbities or significant history of recurrent or chronic tonsillitis.
Interventions	**Intervention Characteristics** Intervention (tonsillotomi) ● *Number of surgeons, n*: ● *Surgical technique*: Performed with either the EVAC T&A or EVAC 70 handpieces (Arthrocare). Toncils were ablated from the surface inward with the wand set the coblate 9 setting. The wand skims the tonsil surface with continuous saline irrigation. Ablation was performed down to but not penetrating the capsule. Retraction of the tonsillar pillars is used to help define the margins for near-complete ablation. Only a thin layer of tonsillar tissue is left in situ to avoid penetration of the capsule. In most cases, no hemostasis was necessary; however when it was required the wand was used on the coagulate 5 setting ● *Surgical time (minutes), mean(sd)*: 28.5(19.1) ● *Tonsil removal, %*: Control (tonsillektomi) ● *Number of surgeons, n*: ● *Surgical technique*: Performed by usin tranditional supcapsular tonsil dissection with the Bovie set at 20 W. ● *Surgical time (minutes), mean(sd)*: 30.2(23.2) ● *Tonsil removal, %*:
Outcomes	*Post-operative pain, days untill painfree* ● **Outcome type**: ContinuousOutcome ● **Measure names**: ["Baseline", "0-30 days follow up"] *Resume of normal diet* ● **Outcome type**: ContinuousOutcome ● **Measure names**: ["Baseline", "0-30 days follow up"] *Return to daily activities* ● **Outcome type**: ContinuousOutcome ● **Measure names**: ["Baseline", "0-30 days follow up"]

	Primary haemorage (primær reblødning) ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"] *Secundary haemorage (sekundær reblødning)* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"] *Relief of symptoms (remission af symptomer)* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"] *Regrowth of tonsil (tonsilvækst ved follow-up)* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"] *Readmission because of pain (genindlæggelser pga. smereter)* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"] *Readmission because of dehydration (genindlæggelser pga. dehydrering)* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"] *Normal diet (mean %)* ● **Outcome type**: AdverseEvent ● **Measure names**: ["Baseline", "1-2 days", "3-4 days"] *Usual activity level (mean %)* ● **Outcome type**: AdverseEvent ● **Measure names**: ["1-2 days", "3-4 days", "5-6 days"]
Identification	**Sponsorship source:** **Country:** USA **Setting:** **Comments:** **Authors name:** Chang, 2005

	Institution: Department of Otolaryngology – Head and Neck Surgery, Stanford University School of Medicine, Stanford California **Email:** kchang@standfordmed.org **Address:** Kay W. Chang. MD. Standford Otolaryngology, 801 Welch Road, Palo Alto CA 94304
Notes	*Tina Povlsen* on 23/07/2015 17:49 **Dichotomous Outcomes** There was 1 readmission for dehydration in the electrocautery group, however we don't have the endpont.

Risk of bias table

Bias	Authors' judgement	Support for judgement
Sequence Generation	Unclear risk	Judgement Comment: Patiens were randomly assigned to treatment groups.
Allocation concealment	Unclear risk	Judgement Comment: Not described
Blinding of participants and personnel	Low risk	Judgement Comment: Patients and families were blinded to the assignment.
Blinding of outcome assessors	Unclear risk	Judgement Comment: The nurse practitioner performing the assessments were blinded to the treatment assignment
Incomplete outcome data	Unclear risk	Judgement Comment: No flow chart or description of dropouts, however the only measure outcomes at max. day 6 postoperatively. They have not stated how they treated the data.
Selective outcome reporting	Low risk	Judgement Comment: All outcomes are adressed
Other sources of bias	Low risk	Judgement Comment: Apparently no other bias.

Chang 2008

Methods	**Study design:** Randomized controlled trial **Study grouping:** Parallel group **Open Label:** **Cluster RCT:**
Participants	**Baseline Characteristics** Intervention (tonsillotomi) ● *Age, mean (sd)*: 6.2(3.3) ● *Males, %*: 50 ● *Sample size, n*: 34 Control (tonsillektomi) ● *Age, mean (sd)*: 6.2(3.3) ● *Males, %*: 50 ● *Sample size, n*: 34 **Included criteria:** Children who were scheduled to have tonsillectomy and adenoidectomy for obstructive sleep apnea or sleep disordered breathing. **Excluded criteria:** Children with significant comorbities or significant history of recurrent/chonoc tonsillitis.
Interventions	**Intervention Characteristics** Intervention (tonsillotomi) ● *Adenectomy, %*: ● *Number of surgeons, n*: ● *Surgical technique*: Performed with the EV ACT and A handpiece(Arthrocare, Sunnyvale CA). Tonsils were ablated from the surface inward with the wand set at Coblate 9 setting. The wand skims the tonsil surface with continuous saline irrigation. Ablation was performed down to but not penetrating the capsule. Retraction of the tonsillar pillars is used to help define the margins for nearcomplete ablation. As the capsule is approached the wand is turned down ti coblate 6 setting. A thin layer of tonsilar tissue is preserved in order to avoid penetration of the capsule. In most cases no hemostasis was necessary; however when it was required, the wand was used in the Coagulate 5 setting. ● *Surgical time (minutes), mean(sd)*: ● *Fraction of tonsil removed, %*: Control (tonsillektomi) ● *Adenectomy, %*:

	● *Number of surgeons, n*: ● *Surgical technique*: Performed with the EV AC 70 handpiece. A coblate setting of 6 was used during the dissection. The tonsil was retracted and dissected out in the subcapsular plane; care was taken to always face the active surface electrodes towars the tonsil rather than down into the fossa in order to minimize injury to the constrictor muscles. Hemostasis was achieved with Colagulate 5 setting. ● *Surgical time (minutes), mean(sd)*: ● *Fraction of tonsil removed, %*:
Outcomes	*Post-operative pain, days untill painfree* ● **Outcome type**: ContinuousOutcome ● **Measure names**: ["Baseline", "0-30 days follow up"] *Resume of normal diet* ● **Outcome type**: ContinuousOutcome ● **Measure names**: ["Baseline", "0-30 days follow up"] *Return to daily activities* ● **Outcome type**: ContinuousOutcome ● **Measure names**: ["Baseline", "0-30 days follow up"] *Primary haemorage (primær reblødning)* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"] *Secundary haemorage (sekundær reblødning)* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"] *Relief of symptoms (remission af symptomer)* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"] *Regrowth of tonsil (tonsilvækst ved follow-up)* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"] *Readmission because of pain (genindlæggelser pga. smereter)*

	● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"] *Readmission because of dehydration (genindlæggelser pga. dehydrering)* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"] *Usual diet* ● **Outcome type**: AdverseEvent ● **Measure names**: ["Baseline"] ● **Data value**: Endpoint ● **Notes** : Is measured at day 1 and 2 and 5 and 6. Numbers are from day 5 and 6 since they are statitically significant. *Usual activity level* ● **Outcome type**: AdverseEvent ● **Measure names**: ["Baseline"] ● **Data value**: Endpoint ● **Notes**: Is measured at day 1 and 2 and 5 and 6. Numbers are from day 5 and 6.
Identification	**Sponsorship source:** Dr. Chang has been a consultant for Arthrocare and is on their Speaker's Bureau. Arthrocare had no role in planning, conducting, supporting or analyzing this study **Country:** USA **Setting:** **Comments:** **Authors name:** Chang, 2008 **Institution:** Department of Otolaryngology – Head and Neck Surgery, Stanford University School of Medicine, Stanford California **Email:** kchang@standfordmed.org **Address:** Kay W. Chang. MDStanford Otolaryngology, 801Welch Road, Stanford. CA 94305
Notes	

Risk of bias table

Bias	Authors' judgement	Support for judgement
Sequence Generation	Unclear risk	Judgement Comment: Randomly assignment
Allocation concealment	Unclear risk	Judgement Comment: Not described
Blinding of participants and personnel	Low risk	Judgement Comment: Patients and their families were blinded to assignment.
Blinding of outcome assessors	Low risk	Judgement Comment: Nurce practitioner who performed the assessment were blinded to the treatment assignment.
Incomplete outcome data	High risk	Judgement Comment: No flowchart, no state of potentiel dropouts, no description of e.g. intention to treat analysis or as treated analysis.
Selective outcome reporting	High risk	Judgement Comment: The article state an outcome to be if parents missed work, however it is not reported.
Other sources of bias	Low risk	Judgement Comment: Apparently no other bias

Densert 2001

Methods	**Study design:** Randomized controlled trial **Study grouping:** Parallel group **Open Label:** **Cluster RCT:**
Participants	**Baseline Characteristics** Intervention (tonsillotomi) ● *Age, mean (sd)*: ● *Males, %*: ● *Sample size, n*: Control (tonsillektomi) ● *Age, mean (sd)*: ● *Males, %*: ● *Sample size, n*:

	Included criteria: Included in the study onthe basis of symptoms of OSAS. **Excluded criteria:** Children with tonsil-lar problems caused by infections were no tincluded.
Interventions	**Intervention Characteristics** Intervention (tonsillotomi) ● *Number of surgeons, n*: ● *Surgical technique*: For the TT procedure an incision was made in themucosa close to the anterior pillar and the tonsilswere split without interfering with the tonsillar cap- sule or the anterior or posterior pillars. About 30–50% of the tonsillar tissue volume was removed. TheTT was performed using a Sharplan CO2laser set at25 W continuous mode and equipped with a hand- piece. The posterior pharyngeal wall was covered bya wet gauze pad to avoid damage to the mucosa bythe laser. The endotracheal tube was protected by themouth gag. All required and appropriate safety pre- cautions for using CO2laser in surgery were observed.All surgery was performed by one surgeon. ● *Surgical time (minutes), mean(sd)*: ● *Fraction of tonsil removed, %*: ● *Adenectomy, %*: Control (tonsillektomi) ● *Number of surgeons, n*: ● *Surgical technique*: The surgical procedure of standard TE was performedby blunt dissection after an incision in themucosa. The tonsillar capsule plane was dissectedand all palatine tonsillar tissue removed. Hemostasiswas normally obtained by compression of the tonsillarfossa and in a few cases by using bipolardiathermy. ● *Surgical time (minutes), mean(sd)*: ● *Fraction of tonsil removed, %*: ● *Adenectomy, %*:
Outcomes	*Post-operative pain, days untill painfree* ● **Outcome type**: ContinuousOutcome ● **Measure names**: ["Baseline", "0-30 days follow up"] *Resume of normal diet* ● **Outcome type**: ContinuousOutcome ● **Measure names**: ["Baseline", "0-30 days follow up"] *Return to daily activities*

	● **Outcome type**: ContinuousOutcome ● **Measure names**: ["Baseline", "0-30 days follow up"] *Primary haemorage (primær reblødning)* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"] *Secundary haemorage (sekundær reblødning)* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"] *Relief of symptoms (remission af symptomer)* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"] *Regrowth of tonsil (tonsilvækst ved follow-up)* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"] *Readmission because of pain (genindlæggelser pga. smereter)* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"] *Readmission because of dehydration (genindlæggelser pga. dehydrering)* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"]
Identification	**Sponsorship source:** **Country:** Sweden **Setting:** **Comments:** **Authors name:** Densert, 2001 **Institution:** Departments of Otorhinolaryngology and Pediatrics, County Hospital, Halmstad **Email:** **Address:** Ove DensertCityClinicSE-30243 HalmstadSweden

Notes	*Tina Povlsen* on 24/07/2015 18:31 **Dichotomous Outcomes** One patient in the TT group showed a slightincrease in tonsillar size but no recurrence of clinicalsymptoms.

Risk of bias table

Bias	Authors' judgement	Support for judgement
Sequence Generation	Unclear risk	Quote: "On the day of surgery, the patients were randomized into one of two groups to undergo either a standard TE or a TT using a CO 2 laser."
Allocation concealment	Unclear risk	Judgement Comment: Not described
Blinding of participants and personnel	Unclear risk	Judgement Comment: Not described
Blinding of outcome assessors	Low risk	Judgement Comment: The patient data were blinded and evaluated by a researcher and statistician who did not have any direct communication with or knowledge of the patients.
Incomplete outcome data	High risk	Judgement Comment: They have not differenciated how many patients that were randomised to the treatment and the control group. Nor have they stated whether or not they have analysed data as intention to treat, pr. protoccol or as treated.
Selective outcome reporting	Low risk	Judgement Comment: All prespecified outcomes are adressed
Other sources of bias	Low risk	Judgement Comment: Aparrently no other bias

Derkay 2006

Methods	**Study design:** Randomized controlled trial **Study grouping:** Parallel group **Open Label:** **Cluster RCT:**

Participants	**Baseline Characteristics** Intervention (tonsillotomi) ● *Age, mean (sd)*: ● *Males, %*: 45 ● *Sample size, n*: 150 Control (tonsillektomi) ● *Age, mean (sd)*: ● *Males, %*: 45 ● *Sample size, n*: 150 **Included criteria:** Children over 2 years of age undergoing tonsilectomy solely for symptomatic adenotonsillar hyperplasia were consideren for enrollment **Excluded criteria:** Histrory of recurrent tonsillitis, craniofacial syndrom, hematologic disorder, servere development disorder or severe co-morbid factors.
Interventions	**Intervention Characteristics** Intervention (tonsillotomi) ● *Number of surgeons, n*: ● *Surgical technique*: Performed using the Straight-Shot microdebrider with a RASenoid blade at 2000 rmp and hemostasis was achieved with suction electrocautery at 35 watts. ● *Surgical time (minutes), mean(sd)*: ● *Fraction of tonsil removed, %*: ● *Adenectomy, %*: Control (tonsillektomi) ● *Number of surgeons, n*: ● *Surgical technique*: Pencil electrocautery was used at 15 watts in the cautery group. ● *Surgical time (minutes), mean(sd)*: ● *Fraction of tonsil removed, %*: ● *Adenectomy, %*:

Outcomes	*Post-operative pain, days untill painfree* ● **Outcome type**: ContinuousOutcome ● **Measure names**: ["Baseline", "0-30 days follow up"] *Resume of normal diet* ● **Outcome type**: ContinuousOutcome ● **Measure names**: ["Baseline", "0-30 days follow up"] *Return to daily activities* ● **Outcome type**: ContinuousOutcome ● **Measure names**: ["Baseline", "0-30 days follow up"] *Primary haemorage (primær reblødning)* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"] *Secundary haemorage (sekundær reblødning)* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"] *Relief of symptoms (remission af symptomer)* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"] *Regrowth of tonsil (tonsilvækst ved follow-up)* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"] *Readmission because of pain (genindlæggelser pga. smereter)* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"] *Readmission because of dehydration (genindlæggelser pga. dehydrering)* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"] *Normal avtivity*

	● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"] *Normal activity* ● **Outcome type**: AdverseEvent ● **Measure names**: ["Baseline", "Day 1", "Day 2", "Day 3", "Day 4"] ● **Reporting**: Fully reported
Identification	**Sponsorship source:** Grant from an unrestricted educational grant from the Medtronics Corporation **Country:** Usa **Setting:** **Comments:** **Authors name:** Denkey, 2008 **Institution:** Department of Otolaryngology – Head and Neck Surgery, Earstern Virgina Medical School **Email:** derkeycs@chkd.com **Address:**
Notes	*Tina Povlsen* on 27/07/2015 16:44 **Dichotomous Outcomes** Readmission dehydration (%)Intervention: 5 N = 150. Control: 4 N = 150. No information about the timeline. Readmission bleeding (%)Intervention: 2 N = 150. Control: 3 N = 150. No information about the timeline. *Tina Povlsen* on 27/07/2015 16:50 **Continuous Outcomes** Normal dietIntevention: 3.0 (1.5-6.0)Control:3.5 (1.5-6.5)

Risk of bias table

Bias	Authors' judgement	Support for judgement
Sequence Generation	Low risk	Judgement Comment: Random number generator
Allocation concealment	Unclear risk	Judgement Comment: Not described
Blinding of participants and personnel	Low risk	Judgement Comment: Patients and family were blinded

Blinding of outcome assessors	Unclear risk	Judgement Comment: Nurse was blinding. Surgion was not
Incomplete outcome data	Low risk	Judgement Comment: Intention to treat analysis was performed.
Selective outcome reporting	Low risk	Judgement Comment: All predefined outcomes are adressed
Other sources of bias	Low risk	Judgement Comment: Aparrently no other bias

Ericsson 2006

Methods	**Study design:** Randomized controlled trial **Study grouping:** Parallel group **Open Label:** **Cluster RCT:**
Participants	**Baseline Characteristics** Intervention (tonsillotomi) ● *Age, mean (sd)*: 8.7 (3.6) ● *Males, %*: 38 ● *Sample size, n*: 49 Control (tonsillektomi) ● *Age, mean (sd)*: 8.7 (3.6) ● *Males, %*: 38 ● *Sample size, n*: 49 **Included criteria:** Obstructive problems, with varying degree of sleep disturbance and daytime sleepiness with or without recurrent tonsillitis. **Excluded criteria:** Peritonsillitis.
Interventions	**Intervention Characteristics** Intervention (tonsillotomi) ● *Surgical technique*: Performed with a Surgitrone 1,7MHz. Only the protruding parts of the tonsils were removed. ● *Surgical time (minutes), mean(sd)*: ● *Fraction of tonsil removed, %*: ● *Adenectomy, %*: 53 ● *Number of surgeons, n*:

	Control (tonsillektomi) ● *Surgical technique*: Performed with a cold knife and blunt dissection outside the capsula. ● *Surgical time (minutes), mean(sd)*: ● *Fraction of tonsil removed, %*: ● *Adenectomy, %*: 44 ● *Number of surgeons, n*:
Outcomes	*Post-operative pain, days untill painfree* ● **Outcome type**: ContinuousOutcome ● **Measure names**: ["Baseline", "0-30 days follow up"] *Resume of normal diet* ● **Outcome type**: ContinuousOutcome ● **Measure names**: ["Baseline", "0-30 days follow up"] *Return to daily activities* ● **Outcome type**: ContinuousOutcome ● **Measure names**: ["Baseline", "0-30 days follow up"] *Primary haemorage (primær reblødning)* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"] *Secundary haemorage (sekundær reblødning)* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"] *Relief of symptoms (remission af symptomer)* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"] *Regrowth of tonsil (tonsilvækst ved follow-up)* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"] *Readmission because of pain (genindlæggelser pga. smereter)* ● **Outcome type**: DichotomousOutcome

	● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"] *Readmission because of dehydration (genindlæggelser pga. dehydrering)* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"]
Identification	**Sponsorship source:** Research council of South East Sweden **Country:** Sweden **Setting:** **Comments:** **Authors name:** Ericsson, 2006 **Institution:** Division of Otorhinolaryngology, Department of Neuroscience and Locomotion, **Email:** elihu@inr.liu.se **Address:**
Notes	*Birgitte Holm Petersen* on 22/08/2015 22:00 **Included** Samme som 4017: Hulkrantz 2004 og 4031: Ericsson 2006

Risk of bias table

Bias	Authors' judgement	Support for judgement
Sequence Generation	Low risk	Judgement Comment: Randomization was performed sccording to a modification of Zelen's method.
Allocation concealment	Unclear risk	Judgement Comment: Not described.
Blinding of participants and personnel	Unclear risk	Judgement Comment: Not described.
Blinding of outcome assessors	Unclear risk	Judgement Comment: Not described.
Incomplete outcome data	Unclear risk	Judgement Comment: No statement of dropouts or how the treated the data
Selective outcome reporting	Low risk	Judgement Comment: All outcomes seams adressed
Other sources of bias	Low risk	Judgement Comment: Apparently no other bias.

Ericsson 2006a

Methods	**Study design:** Randomized controlled trial **Study grouping:** Parallel group **Open Label:** **Cluster RCT:**
Participants	**Baseline Characteristics** Intervention (tonsillotomi) ● *Males, %*: ● *Sample size, n*: 43 ● *Age, mean (sd)*: Control (tonsillektomi) ● *Males, %*: ● *Sample size, n*: 43 ● *Age, mean (sd)*: **Included criteria:** children, 5 to 15 years old, were taken from thewaiting list for tonsil surgery consisting of children with obstructiveproblems or recurrent tonsillitis. **Excluded criteria:** Children who had had peritonsillitis,those with small tonsils, and those who no longerfulfilled the criteria for surgery were excluded
Interventions	**Intervention Characteristics** Intervention (tonsillotomi) ● *Number of surgeons, n*: ● *Surgical technique*: A Surgitrone, 1.7 MHz (Ellman International Inc., Hewlett,NY), was used with specially designed, sling electrodes. ● *Surgical time (minutes), mean(sd)*: ● *Fraction of tonsil removed, %*: ● *Adenectomy, %*: Control (tonsillektomi) ● *Number of surgeons, n*: ● *Surgical technique*: ● *Surgical time (minutes), mean(sd)*:

	● *Fraction of tonsil removed, %*: ● *Adenectomy, %*:
Outcomes	*Post-operative pain, days untill painfree* ● **Outcome type**: ContinuousOutcome ● **Measure names**: ["Baseline", "0-30 days follow up"] *Resume of normal diet* ● **Outcome type**: ContinuousOutcome ● **Measure names**: ["Baseline", "0-30 days follow up"] *Return to daily activities* ● **Outcome type**: ContinuousOutcome ● **Measure names**: ["Baseline", "0-30 days follow up"] *Primary haemorage (primær reblødning)* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"] *Secundary haemorage (sekundær reblødning)* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"] *Relief of symptoms (remission af symptomer)* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"] *Regrowth of tonsil (tonsilvækst ved follow-up)* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"] *Readmission because of pain (genindlæggelser pga. smereter)* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"] *Readmission because of dehydration (genindlæggelser pga. dehydrering)* ● **Outcome type**: DichotomousOutcome

	● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"]
Identification	**Sponsorship source:** The sources of financial support for this project come from theResearch Council of South East Sweden (FORSS), Capio Research Foundation,Sweden, the County Council of South East Sweden, and the ResearchFoundation of Ollie and Elof Ericsson, Sweden **Country:** Sweden **Setting:** **Comments:** **Authors name:** Ericsson, 2006 **Institution:** Division of Otorhinolaryngology, Department of Neuroscience and Locomotion, **Email:** elihu@inr.liu.se **Address:**
Notes	*Birgitte Holm Petersen* on 22/08/2015 21:59 **Included** Samme som 4016: Ericsson 2006 og 4031: Hulcrantz 2004

Risk of bias table

Bias	Authors' judgement	Support for judgement
Sequence Generation	Unclear risk	Quote: "Ninety-two were finally randomized:"
Allocation concealment	Unclear risk	Judgement Comment: Not described
Blinding of participants and personnel	Unclear risk	Judgement Comment: Not described
Blinding of outcome assessors	Unclear risk	Judgement Comment: Not described
Incomplete outcome data	High risk	Judgement Comment: Dropouts are stated, however no description of how data is treated.
Selective outcome reporting	High risk	Judgement Comment: No description of which outcomes they want to adress
Other sources of bias	Low risk	Judgement Comment: Apparrently no other bias

Ericsson 2009

Methods	**Study design:** Randomized controlled trial **Study grouping:** Parallel group **Open Label:** **Cluster RCT:**
Participants	**Baseline Characteristics** Intervention (tonsillotomi) ● *Males, %*: ● *Sample size, n*: 35 ● *Age, mean (sd)*: Control (tonsillektomi) ● *Males, %*: ● *Sample size, n*: 35 ● *Age, mean (sd)*: **Included criteria:** tonsillarhypertrophy and sleep disordered breathing with or withoutrecurrent tonsillitis. **Excluded criteria:** treatment with antibiotics for throat infections during the lastthree months, previously treatment for peritonsillitis, records stating small tonsils, other complicating disease needing special care, children and/or caregivers not speaking Swedish.The
Interventions	**Intervention Characteristics** Intervention (tonsillotomi) ● *Number of surgeons, n*: ● *Surgical technique*: TT was performed with the ellman 4.0 MHz Surgitron1 DualRadiowave unit (ellman International Inc. 3333 Royal Ave.,Oceanside, NY 11572, USA). The protruding parts of the tonsilswere removed parallel with the tonsillar pillars ● *Surgical time (minutes), mean(sd)*: ● *Fraction of tonsil removed, %*: ● *Adenectomy, %*: Control (tonsillektomi) ● *Number of surgeons, n*: ● *Surgical technique*: TE wasperformed with cold knife and blunt dissection. Adenoidectomywas performed using ring

	knife. All surgery was performed by theclinics' ordinary otolaryngologists ● *Surgical time (minutes), mean(sd)*: ● *Fraction of tonsil removed, %*: ● *Adenectomy, %*:
Outcomes	*Post-operative pain, days untill painfree* ● **Outcome type**: ContinuousOutcome ● **Measure names**: ["Baseline", "0-30 days follow up"] *Resume of normal diet* ● **Outcome type**: ContinuousOutcome ● **Measure names**: ["Baseline", "0-30 days follow up"] *Return to daily activities* ● **Outcome type**: ContinuousOutcome ● **Measure names**: ["Baseline", "0-30 days follow up"] *Primary haemorage (primær reblødning)* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"] *Secundary haemorage (sekundær reblødning)* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"] *Relief of symptoms (remission af symptomer)* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"] *Regrowth of tonsil (tonsilvækst ved follow-up)* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"] *Readmission because of pain (genindlæggelser pga. smereter)* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"]

	Readmission because of dehydration (genindlæggelser pga. dehydrering) ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"]
Identification	**Sponsorship source:** Financial support for this project was received from theResearch Council of South East Sweden (FORSS) **Country:** Sweden **Setting:** **Comments:** **Authors name:** Ericsson, 2009 **Institution:** Department of Nursing Science, School of Health Sciences **Email:** elisabeth.ericson@hhj.hj.se, Elisabeth.Ericsson@liu.se **Address:** Department of Nursing Science, School of HealthSciences, Jönköping University, Box1026, SE-551 11 Jönköping, Sweden.
Notes	

Risk of bias table

Bias	Authors' judgement	Support for judgement
Sequence Generation	Low risk	Quote: "The randomization procedure was implemented using a computer- generated sequentially numbered list."
Allocation concealment	Unclear risk	Judgement Comment: Not described
Blinding of participants and personnel	Unclear risk	Judgement Comment: Not described
Blinding of outcome assessors	Unclear risk	Judgement Comment: Not described
Incomplete outcome data	Low risk	Judgement Comment: No dropouts
Selective outcome reporting	Low risk	Judgement Comment: All outcomes are adressed
Other sources of bias	Low risk	Judgement Comment: Aparrently no other bias.

Hultcrantz 1999

Methods	**Study design:** Randomized controlled trial **Study grouping:** Parallel group **Open Label:** YES **Cluster RCT:**
Participants	**Baseline Characteristics** Intervention (tonsillotomi) ● *Age, mean (sd)*: 6(1.5) ● *Males, %*: ● *Sample size, n*: 21 Control (tonsillektomi) ● *Age, mean (sd)*: 6(1.5) ● *Males, %*: ● *Sample size, n*: 21 **Included criteria:** All of them had beenput on the waiting list for tonsillar surgery due toobstructive problems: snoring and/or sleep apnea,mouth breathing, and/or eating problems. Theyall had a verified tonsillar hyperplasia and none ofthem had had repeated streptococcal throat infections. **Excluded criteria:** Parents/childs preferences for surgical techniqueIndication for tonsillectomy due to recurrent throat infections
Interventions	**Intervention Characteristics** Intervention (tonsillotomi) ● *Number of surgeons, n*: 1 ● *Surgical technique*: tonsillotomy with CO2-laser (TT) ● *Surgical time (minutes), mean(sd)*: 24.5 (14) ● *Fraction of tonsil removed, %*: ● *Adenectomy, %*: 14 Control (tonsillektomi) ● *Number of surgeons, n*: Differnet surgeons in the department ● *Surgical technique*: conventional surgical technique (TE) ● *Surgical time (minutes), mean(sd)*: 27.5 (13)

	● *Fraction of tonsil removed, %*: ● *Adenectomy, %*: 15
Outcomes	*Post-operative pain, days untill painfree* ● **Outcome type**: ContinuousOutcome ● **Measure names**: ["Baseline", "0-30 days follow up"] *Resume of normal diet* ● **Outcome type**: ContinuousOutcome ● **Measure names**: ["Baseline", "0-30 days follow up"] *Return to daily activities* ● **Outcome type**: ContinuousOutcome ● **Measure names**: ["Baseline", "0-30 days follow up"] *Primary haemorage (primær reblødning)* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"] *Secundary haemorage (sekundær reblødning)* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"] *Relief of symptoms (remission af symptomer)* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"] *Regrowth of tonsil (tonsilvækst ved follow-up)* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"] *Readmission because of pain (genindlæggelser pga. smereter)* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"] *Readmission because of dehydration (genindlæggelser pga. dehydrering)* ● **Outcome type**: DichotomousOutcome

	● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"]
Identification	**Sponsorship source:** **Country:** Sweeden **Setting:** **Comments:** **Authors name:** Elisabeth Hultcrantz * **Institution:** Uppsala University Hospital **Email:** **Address:**
Notes	*Birgitte Holm Petersen* on 22/08/2015 23:31 **Included** Samme som 4036: Hulcrantz 2005 *Birgitte Holm Petersen* on 23/08/2015 01:45 **Baseline Characteristics** Ikke angivet alder eller køn for de to grupper, kun en samlet middel for alder og antal for køn. *Birgitte Holm Petersen* on 23/08/2015 01:58 **Continuous Outcomes** Retur to diet reported only with a difference: 3 days earlier for TT *Birgitte Holm Petersen* on 23/08/2015 02:01 **Dichotomous Outcomes** Remmission af symptomer: snorken

Risk of bias table

Bias	Authors' judgement	Support for judgement
Sequence Generation	Unclear risk	Judgement Comment: Not described
Allocation concealment	Unclear risk	Judgement Comment: Not described
Blinding of participants and personnel	Unclear risk	Judgement Comment: Not described
Blinding of outcome assessors	Unclear risk	Judgement Comment: Not described
Incomplete outcome data	Low risk	
Incomplete outcome data	Low risk	
Selective outcome reporting	Low risk	Judgement Comment: Protocol not available, but unlikely to influence results
Other sources of bias	Low risk	Judgement Comment: No baseline data recorded

Hultcrantz 2004

Methods	**Study design:** Randomized controlled trial **Study grouping:** Parallel group **Open Label:** YES **Cluster RCT:**
Participants	**Baseline Characteristics** Intervention (tonsillotomi) ● *Age, mean (sd)*: 8.7 ● *Males, %*: 39 ● *Sample size, n*: 49 Control (tonsillektomi) ● *Age, mean (sd)*: 8.7 ● *Males, %*: 39 ● *Sample size, n*: 49 **Included criteria:** tonsillar hypertrophy with or without recurrent tonsillitis **Excluded criteria:** No longer indication for surgery

Interventions	**Intervention Characteristics** Intervention (tonsillotomi) ● *Number of surgeons, n*: 6 ● *Surgical technique*: Radio frequency, haemostasis with compression/RF coagulation device ● *Surgical time (minutes), mean(sd)*: 28.3 ● *Fraction of tonsil removed, %*: Protruding part ● *Adenectomy, %*: 53 Control (tonsillektomi) ● *Number of surgeons, n*: not stated, 6 + experienced surgeons from regular staff ● *Surgical technique*: Blunt dissection, haemostasis with suture ● *Surgical time (minutes), mean(sd)*: 26.5 ● *Fraction of tonsil removed, %*: 100 ● *Adenectomy, %*: 44
Outcomes	*Post-operative pain, days untill painfree* ● **Outcome type**: ContinuousOutcome ● **Measure names**: ["Baseline", "0-30 days follow up"] *Resume of normal diet* ● **Outcome type**: ContinuousOutcome ● **Measure names**: ["Baseline", "0-30 days follow up"] *Return to daily activities* ● **Outcome type**: ContinuousOutcome ● **Measure names**: ["Baseline", "0-30 days follow up"] *Primary haemorage (primær reblødning)* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"] *Secundary haemorage (sekundær reblødning)* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"] *Relief of symptoms (remission af symptomer)*

	● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"] *Regrowth of tonsil (tonsilvækst ved follow-up)* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"] *Readmission because of pain (genindlæggelser pga. smereter)* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"] *Readmission because of dehydration (genindlæggelser pga. dehydrering)* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"]
Identification	**Sponsorship source:** **Country:** Sweeden **Setting:** **Comments:** Samme som Ericsson 2006 og Ericsson 2004 **Authors name:** Hulkrantz **Institution:** University of Linkjöbing **Email:** elihu@inr.liu.se **Address:** o Dr. Elisabeth Hultcrantz, Professor of Otorhinolaryngology,Department of Neuroscience and Locomotion, Divisionof Otorhinolaryngology, Faculty of Medicine, Linköping University, SE-58185 Linköping, Sweden.
Notes	*Birgitte Holm Petersen* on 22/08/2015 22:01 **Included** Samme som 4016: Ericsson 2006 og 4031: Ericsson 2006Quality assessment lavet ved 4031 *Birgitte Holm Petersen* on 22/08/2015 23:00 **Baseline Characteristics** Mean age (8.7, 95%CI 8.1-9.3) only reported for alle included children, with no difference between groups. No of patients in each age group reported *Birgitte Holm Petersen* on 22/08/2015 23:04

	Intervention Characteristics Surgical time: only mean + 95%CI available *Birgitte Holm Petersen* on 22/08/2015 23:08 **Continuous Outcomes** mean + 95%CI availableDaily activities: First day in school *Birgitte Holm Petersen* on 22/08/2015 23:14 **Dichotomous Outcomes** Unclear whether the heamorhage in the contol group was primary or secondary; is regarded as primary.

Risk of bias table

Bias	Authors' judgement	Support for judgement
Sequence Generation	Low risk	Judgement Comment: Zelens method
Allocation concealment	Low risk	Judgement Comment: Zelen method
Blinding of participants and personnel	Unclear risk	Judgement Comment: Not described
Blinding of outcome assessors	Unclear risk	Judgement Comment: Not described
Incomplete outcome data	Low risk	
Selective outcome reporting	Low risk	
Other sources of bias	Low risk	

Hultcrantz 2005

Methods	**Study design:** Randomized controlled trial **Study grouping:** Parallel group **Open Label:** YES **Cluster RCT:**

Participants	**Baseline Characteristics** Intervention (tonsillotomi) ● *Age, mean (sd)*: ● *Males, %*: ● *Sample size, n*: 21 Control (tonsillektomi) ● *Age, mean (sd)*: ● *Males, %*: ● *Sample size, n*: 21 **Included criteria:** Onstructive symptoms + tonsillar hypertrophy **Excluded criteria:** many recurrent tonsillittisparent/child preferences for surgical technique
Interventions	**Intervention Characteristics** Intervention (tonsillotomi) ● *Number of surgeons, n*: 1 ● *Surgical technique*: CO2 laser ● *Surgical time (minutes), mean(sd)*: ● *Fraction of tonsil removed, %*: ● *Adenectomy, %*: Control (tonsillektomi) ● *Number of surgeons, n*: different specialists at the department ● *Surgical technique*: Conventional surgical technique ● *Surgical time (minutes), mean(sd)*: ● *Fraction of tonsil removed, %*: ● *Adenectomy, %*:
Outcomes	*Post-operative pain, days untill painfree* ● **Outcome type**: ContinuousOutcome ● **Measure names**: ["Baseline", "0-30 days follow up"] *Resume of normal diet* ● **Outcome type**: ContinuousOutcome ● **Measure names**: ["Baseline", "0-30 days follow up"]

	Return to daily activities ● **Outcome type**: ContinuousOutcome ● **Measure names**: ["Baseline", "0-30 days follow up"] *Primary haemorage (primær reblødning)* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"] *Secundary haemorage (sekundær reblødning)* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"] *Relief of symptoms (remission af symptomer)* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"] *Regrowth of tonsil (tonsilvækst ved follow-up)* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"] *Readmission because of pain (genindlæggelser pga. smereter)* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"] *Readmission because of dehydration (genindlæggelser pga. dehydrering)* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"]
Identification	**Sponsorship source:** **Country:** Sweeden **Setting:** **Comments:** **Authors name:** Elisabeth Hultcrantz * **Institution:** Linköping University **Email:** **Address:**

Notes	*Birgitte Holm Petersen* on 22/08/2015 23:31 **Included** Samme som 4028: Hulcrantz 1999 *Birgitte Holm Petersen* on 23/08/2015 02:10 **Baseline Characteristics** Alder og køn ikke angivet for grupperne for sig, og ikke mean alder, kun range *Birgitte Holm Petersen* on 23/08/2015 02:25 **Dichotomous Outcomes** remission af symptomer: forældre rapporteret apnøe efter 6 år.Snorken ligeledes rapporteret

Risk of bias table

Bias	Authors' judgement	Support for judgement
Sequence Generation	Unclear risk	Judgement Comment: Not described
Allocation concealment	Unclear risk	Judgement Comment: Not described
Blinding of participants and personnel	Unclear risk	Judgement Comment: Not described
Blinding of outcome assessors	Unclear risk	Judgement Comment: Not described
Incomplete outcome data	Low risk	
Selective outcome reporting	Low risk	Judgement Comment: No protocol.Questionair shown
Other sources of bias	Low risk	Judgement Comment: Questionair sent by e-mail about current health, and compared to earlier questionaires (6+12 mo). All participants answered.Not reported whether patients were operated again in the 6 year follow-up period

Korkmaz 2008

Methods	**Study design:** Randomized controlled trial **Study grouping:** Parallel group **Open Label:** **Cluster RCT:**
Participants	**Baseline Characteristics** Intervention (tonsillotomi) ● *Age, mean (sd)*: 5.45 (2.58) ● *Males, %*: 57 ● *Sample size, n*: 40 Control (tonsillektomi) ● *Age, mean (sd)*: 5.45 (2.58) ● *Males, %*: 57 ● *Sample size, n*: 40 **Included criteria:** Children who werediagnosed with obstructive tonsilla palatina at theDepartment of Otolaryngology, Karadeniz TechnicalUniversity, School of Medicine for Surgery wereincluded to the study process **Excluded criteria:** 1. Patients with documented recurrent tonsillitisdisease. 2. Patients with a history of acute tonsillitis in theprevious 3 weeks.3. Patients with active infection.4. Patients with additional health problems.
Interventions	**Intervention Characteristics** Intervention (tonsillotomi) ● *Surgical time (minutes), mean(sd)*: 21.3 (9.4) ● *Number of surgeons, n*: ● *Surgical technique*: A medial to laterally and inferiorly extending intracapsularresection was completed by scalpel andtissue scissors. Approximately 80—90% tonsillar tissuewas resected. Tonsillar capsule and a smallamount of tissue were left in place. ● *Fraction of tonsil removed, %*: ● *Adenectomy, %*: Control (tonsillektomi) ● *Surgical time (minutes), mean(sd)*: 22.3 (7.9) ● *Number of surgeons, n*:

	● *Surgical technique*: Following the incision of anterior tonsillar plica,tonsillary capsule was identified and tonsilla palatinawas medialized and dissected free from pharyngealmuscle bed and posterior plica. When theinferior pole was reached, a snare was used to resectthe tonsilla. ● *Fraction of tonsil removed, %*: ● *Adenectomy, %*:
Outcomes	*Post-operative pain, days untill painfree* ● **Outcome type**: ContinuousOutcome ● **Measure names**: ["Baseline", "0-30 days follow up"] *Resume of normal diet* ● **Outcome type**: ContinuousOutcome ● **Measure names**: ["Baseline", "0-30 days follow up"] *Return to daily activities* ● **Outcome type**: ContinuousOutcome ● **Measure names**: ["Baseline", "0-30 days follow up"] *Primary haemorage (primær reblødning)* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"] *Secundary haemorage (sekundær reblødning)* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"] *Relief of symptoms (remission af symptomer)* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"] *Regrowth of tonsil (tonsilvækst ved follow-up)* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"] *Readmission because of pain (genindlæggelser pga. smereter)* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"]

	Readmission because of dehydration (genindlæggelser pga. dehydrering) ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"]
Identification	**Sponsorship source:** **Country:** Turkey **Setting:** **Comments:** **Authors name:** Korkmaz, 2008 **Institution:** Department of Otolaryngology, KTU Medical School, Trabzon, Turkey **Email:** refikcaylan@yahoo.com **Address:** KTU Tip Fak, KBB ABD, Trabzon, Turkey
Notes	

Risk of bias table

Bias	Authors' judgement	Support for judgement
Sequence Generation	Unclear risk	Quote: "Prospective, randomized study"
Allocation concealment	Unclear risk	Judgement Comment: Not described
Blinding of participants and personnel	Unclear risk	Judgement Comment: Not described
Blinding of outcome assessors	Unclear risk	Judgement Comment: Not described
Incomplete outcome data	High risk	Judgement Comment: No reasons for dropouts or describtion for which type of analysis.
Selective outcome reporting	Low risk	Judgement Comment: All outcomes are adressed.
Other sources of bias	Low risk	Judgement Comment: Aparrently no other bias

Lister 2006

Methods	**Study design:** Randomized controlled trial **Study grouping:** Parallel group **Open Label:** **Cluster RCT:**
Participants	**Baseline Characteristics** Intervention (tonsillotomi) ● *Age, mean (sd)*: 8.08±2.68 years ● *Males, %*: 48 ● *Sample size, n*: 25 Control (tonsillektomi) ● *Age, mean (sd)*: 8.08±2.68 years ● *Males, %*: 48 ● *Sample size, n*: 25 **Included criteria:** Children aged 5to 15 years who presented with symptoms of obstruction in-cluding persistent snoring with or without apneic events in thesetting of tonsillar or adenotonsillar hypertrophy were re-cruited by one of the participating clinicians **Excluded criteria:** . Children with ahistory of recurrent tonsillitis or peritonsillar abscess were ex-cluded
Interventions	**Intervention Characteristics** Intervention (tonsillotomi) ● *Number of surgeons, n*: 4 ● *Surgical technique*: Microdebrider ● *Surgical time (minutes), mean(sd)*: not reported ● *Fraction of tonsil removed, %*: not reported ● *Adenectomy, %*: 88 Control (tonsillektomi) ● *Number of surgeons, n*: 4 ● *Surgical technique*: Monopolær extrakapsulær tonsillektomi ● *Surgical time (minutes), mean(sd)*: not reported ● *Fraction of tonsil removed, %*: not reported

	● *Adenectomy, %*: 88
Outcomes	*Post-operative pain, days untill painfree* ● **Outcome type**: ContinuousOutcome ● **Measure names**: ["Baseline", "0-30 days follow up"] *Resume of normal diet* ● **Outcome type**: ContinuousOutcome ● **Measure names**: ["Baseline", "0-30 days follow up"] *Return to daily activities* ● **Outcome type**: ContinuousOutcome ● **Measure names**: ["Baseline", "0-30 days follow up"] *Primary haemorage (primær reblødning)* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"] *Secundary haemorage (sekundær reblødning)* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"] *Relief of symptoms (remission af symptomer)* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"] *Regrowth of tonsil (tonsilvækst ved follow-up)* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"] *Readmission because of pain (genindlæggelser pga. smereter)* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"] *Readmission because of dehydration (genindlæggelser pga. dehydrering)* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"]

Identification	**Sponsorship source:** Funding/Support:Gyrus ENT, makers of the micro-debrider technology used in this study, funded the cost ofthe microdebrider blades and provided salary support forthe nurse responsible for data collection and entry **Country:** USA **Setting:** Specialty care hospital **Comments:** **Authors name:** Christopher J. Hartnick, **Institution:** MASS eye and ear **Email:** Christopher_Hartnick@meei.harvard.edu) **Address:** Massachusetts Eye and Ear Infirmary/Harvard MedicalSchool, 243 Charles St, Boston, MA 02114 (
Notes	*Thomas Hjuler* on 14/08/2015 02:44 **Baseline Characteristics** Pt. udgør deres egne kontroller, da begge typer intervention gøres fordelt på hver tonsil.

Risk of bias table

Bias	Authors' judgement	Support for judgement
Sequence Generation	Low risk	Quote: "children were randomized to receive microdebrider intracapsular tonsillotomy (MT) on one side and electrosur- gical extracapsular tonsillectomy (ET) on the remaining side using the SAS 8.2 random number generator"
Allocation concealment	Low risk	Quote: "Preoperatively, each surgeon was notified via tele- phone whether MT was to be performed on the right or the left. Children, parents, and the study nurse were all blinded as to which procedure was performed on either side."
Blinding of participants and personnel	Low risk	
Blinding of outcome assessors	Low risk	Judgement Comment: Outcome assesors er blindet for interventionen
Incomplete outcome data	Unclear risk	Judgement Comment: Information om missing data eller fremfald fremgår ikke
Selective outcome reporting	Unclear risk	Judgement Comment: Not described
Other sources of bias	High risk	Judgement Comment: Studiet finansieret af producent af microdebrider, der anvendes som intervention og anbefales

Park 2007

Methods	**Study design:** Randomized controlled trial **Study grouping:** Parallel group **Open Label:** **Cluster RCT:**
Participants	**Baseline Characteristics** Intervention (tonsillotomi) ● *Age, mean (sd)*: 6.4 (0.6) ● *Males, %*: 26 ● *Sample size, n*: 19 Control (tonsillektomi) ● *Age, mean (sd)*: 6.4 (0.6) ● *Males, %*: 26 ● *Sample size, n*: 19 **Included criteria:** undergoing adenotonsillectomy for airway obstruction or difficulty breathing **Excluded criteria:** Patients with diabetes, cardiac conductionabnormalities, electrolyte abnormalities,liver or kidney insufficiency, hypersensitivity to acetaminophenor hydrocodone, history of chronic pain,pregnancy, were excluded from enrolling in thisstudy. Patients with chronic tonsillitis were also excluded due to the concern that residual tissue froma subtotal tonsillectomy may result in persistenttonsillitis.
Interventions	**Intervention Characteristics** Intervention (tonsillotomi) ● *Number of surgeons, n*: ● *Surgical technique*: In these cases, the tonsillar tissue was retractedmedially and the bulk of the tissue dissected freefrom the tonsillar fossa using the bipolar. A cuff ofcauterized tonsillar tissue was left in the fossa,superficial to the tonsillar capsule. The adenoidswere removed with a curette. Packing of the tonsillarfossa and nasopharynx and suction electrocauterywas used to obtain hemostasis as needed. At theconclusion of the procedure a nasogastric tube wasinserted, and stomach contents were suctioned. ● *Surgical time (minutes), mean(sd)*: 27 (8) ● *Fraction of tonsil removed, %*: ● *Adenectomy, %*:

	Control (tonsillektomi) ● *Number of surgeons, n*: ● *Surgical technique*: For those undergoing total tonsillectomy,a monopolar cautery was used to dissect thetonsil away from its capsule. A setting of 10 W wasused by both surgeons. The monopolar cautery wasalso used to obtain hemostasis in the adenoid bed(25 W for both surgeons). A forceps-type bipolarcautery device was used in the subtotal technique. ● *Surgical time (minutes), mean(sd)*: 24 (10) ● *Fraction of tonsil removed, %*: ● *Adenectomy, %*:
Outcomes	*Post-operative pain, days untill painfree* ● **Outcome type**: ContinuousOutcome ● **Measure names**: ["Baseline", "0-30 days follow up"] *Resume of normal diet* ● **Outcome type**: ContinuousOutcome ● **Measure names**: ["Baseline", "0-30 days follow up"] *Return to daily activities* ● **Outcome type**: ContinuousOutcome ● **Measure names**: ["Baseline", "0-30 days follow up"] *Primary haemorage (primær reblødning)* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"] *Secundary haemorage (sekundær reblødning)* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"] *Relief of symptoms (remission af symptomer)* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"] *Regrowth of tonsil (tonsilvækst ved follow-up)* ● **Outcome type**: DichotomousOutcome

	● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"] *Readmission because of pain (genindlæggelser pga. smereter)* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"] *Readmission because of dehydration (genindlæggelser pga. dehydrering)* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"]
Identification	**Sponsorship source:** **Country:** USA **Setting:** **Comments:** **Authors name:** Park, 2007 **Institution:** Division of Otolaryngology and Pediatrics, University of Utah, 100 North Medial Drive **Email:** albert.park@ihc.com **Address:**
Notes	

Risk of bias table

Bias	Authors' judgement	Support for judgement
Sequence Generation	Low risk	Quote: "A computer generated number table guided the randomization of the patients to receive either a subtotal tonsillectomy or total removal of the ton- sils."
Allocation concealment	Unclear risk	Judgement Comment: Not described.
Blinding of participants and personnel	Unclear risk	Judgement Comment: They stated that it is a double-blinded study, however they do not specify which parts that were blinded.
Blinding of outcome assessors	Unclear risk	Judgement Comment: They stated that it is a double-blinded study, however they do not specify which parts that were blinded.
Incomplete outcome data	High risk	Judgement Comment: One dropout, however they have not stated how they treated data.

Selective outcome reporting	High risk	Judgement Comment: No numbers for normal activity, oral intake, neck, ear, and throat painscales, so they can not be used in a meta-analysis.
Other sources of bias	Low risk	Judgement Comment: Apparently no other bias.

Pruegsanusak 2010

Methods	**Study design:** Randomized controlled trial **Study grouping:** Parallel group **Open Label:** YES **Cluster RCT:**
Participants	**Baseline Characteristics** Intervention (tonsillotomi) ● *Age, mean (sd)*: 6.3 (3.2) ● *Males, %*: 60 ● *Sample size, n*: 20 Control (tonsillektomi) ● *Age, mean (sd)*: 6.3 (3.2) ● *Males, %*: 60 ● *Sample size, n*: 20 **Included criteria:** Inclusion criteria were tonsillarenlargement > 3+ associated with any of the followingsymptoms: excessive snoring, chronic mouth-breathing,failure to thrive, restless sleep, enuresis, daytimesomnolence, hyperactive, cor pulmonale, dysphagia, orspeech abnormalities **Excluded criteria:** The exclusion criteria were acutesuppurative tonsillitis, recurrent acute tonsillitis, andhematological disorder.
Interventions	**Intervention Characteristics** Intervention (tonsillotomi) ● *Number of surgeons, n*: 1 ● *Surgical technique*: microdebriderassistedintracapsular tonsillectomy ● *Surgical time (minutes), mean(sd)*: 15.5 (8.4) ● *Fraction of tonsil removed, %*: A thin rim of lyphoid tussue on the tonsillar capsule ● *Adenectomy, %*: 90

	Control (tonsillektomi) ● *Number of surgeons, n*: More surgions ● *Surgical technique*: cold instrument dissection tonsillectomy ● *Surgical time (minutes), mean(sd)*: 21.1 (9.2) ● *Fraction of tonsil removed, %*: 100 ● *Adenectomy, %*: 65
Outcomes	*Post-operative pain, days untill painfree* ● **Outcome type**: ContinuousOutcome ● **Measure names**: ["Baseline", "0-30 days follow up"] *Resume of normal diet* ● **Outcome type**: ContinuousOutcome ● **Measure names**: ["Baseline", "0-30 days follow up"] *Return to daily activities* ● **Outcome type**: ContinuousOutcome ● **Measure names**: ["Baseline", "0-30 days follow up"] *Primary haemorage (primær reblødning)* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"] *Secundary haemorage (sekundær reblødning)* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"] *Relief of symptoms (remission af symptomer)* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"] *Regrowth of tonsil (tonsilvækst ved follow-up)* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"] *Readmission because of pain (genindlæggelser pga. smereter)*

	● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"] *Readmission because of dehydration (genindlæggelser pga. dehydrering)* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"]
Identification	**Sponsorship source:** **Country:** Thailand **Setting:** Department of Otolaryngology **Comments:** **Authors name:** Kowit Pruegsanusak **Institution:** Prince of Sangkla University **Email:** **Address:**
Notes	

Risk of bias table

Bias	Authors' judgement	Support for judgement
Sequence Generation	Unclear risk	Judgement Comment: Blocks of four
Allocation concealment	Unclear risk	Judgement Comment: Not described
Blinding of participants and personnel	Low risk	Judgement Comment: Not possible for surgion. Patients/parents are blinded
Blinding of outcome assessors	High risk	Judgement Comment: Selvreported outcomes in most cases. Parents are blinded
Incomplete outcome data	Low risk	
Selective outcome reporting	Low risk	
Other sources of bias	Low risk	Judgement Comment: Balance at baseline

Sobol 2006

Methods	**Study design:** Randomized controlled trial **Study grouping:** Parallel group **Open Label:** YES **Cluster RCT:**
Participants	**Baseline Characteristics** Intervention (tonsillotomi) ● *Age, mean (sd)*: 4.9(1.3) ● *Males, %*: 58 ● *Sample size, n*: 38 Control (tonsillektomi) ● *Age, mean (sd)*: 4.9(1.3) ● *Males, %*: 58 ● *Sample size, n*: 38 **Included criteria:** Obstructive symptoms + indication for tonsillectomy **Excluded criteria:** Children younger than 3 years wereexcluded owing to the higher risk of complications following adenotonsillectomy,15and children older than 7 years were excludedto allow the use of 1 standard pain rating scale for all childrenin our study population. Further exclusion criteria includedthe following: prior adenotonsillar surgery, a nonobstructive indicationfor tonsillectomy (ie, chronic tonsillitis and tumor), thepresence of a craniofacial syndrome or mucopolysaccharidoses,patients with impaired ability to express their degree of pain (developmentaldelay and expressive language disorders), and patientswith hematologic and wound-healing disorders and necrotizingdermatoses
Interventions	**Intervention Characteristics** Intervention (tonsillotomi) ● *Number of surgeons, n*: 2 ● *Surgical technique*: microdebriderintracapsular tonsillectomy ● *Surgical time (minutes), mean(sd)*: 20.9 (4.4) ● *Fraction of tonsil removed, %*: Intracapsular ● *Adenectomy, %*: 100 Control (tonsillektomi) ● *Number of surgeons, n*: 2

	● *Surgical technique*: monopolarelectrocautery tonsillectomy ● *Surgical time (minutes), mean(sd)*: 16.6 (4.0) ● *Fraction of tonsil removed, %*: 100 ● *Adenectomy, %*: 100
Outcomes	*Post-operative pain, days untill painfree* ● **Outcome type**: ContinuousOutcome ● **Measure names**: ["Baseline", "0-30 days follow up"] *Resume of normal diet* ● **Outcome type**: ContinuousOutcome ● **Measure names**: ["Baseline", "0-30 days follow up"] *Return to daily activities* ● **Outcome type**: ContinuousOutcome ● **Measure names**: ["Baseline", "0-30 days follow up"] *Primary haemorage (primær reblødning)* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"] *Secundary haemorage (sekundær reblødning)* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"] *Relief of symptoms (remission af symptomer)* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"] *Regrowth of tonsil (tonsilvækst ved follow-up)* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"] *Readmission because of pain (genindlæggelser pga. smereter)* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"]

	Readmission because of dehydration (genindlæggelser pga. dehydrering) ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"]
Identification	**Sponsorship source:** **Country:** USA **Setting:** **Comments:** **Authors name:** Steven E. Sobol **Institution:** Childrens hospital of Philidelphia **Email:** **Address:**
Notes	

Risk of bias table

Bias	Authors' judgement	Support for judgement
Sequence Generation	Low risk	Judgement Comment: sealed envelopes
Allocation concealment	Low risk	Judgement Comment: Opened in the morning before surgery after consent
Blinding of participants and personnel	Low risk	Judgement Comment: although personnel not blinded
Blinding of outcome assessors	Low risk	Judgement Comment: No blinding of surgeons, but outcomes are from questionair form parents
Incomplete outcome data	Unclear risk	Judgement Comment: Not described
Selective outcome reporting	Unclear risk	Judgement Comment: Not described
Other sources of bias	Low risk	

Wilson 2009

Methods	**Study design:** Randomized controlled trial **Study grouping:** Parallel group **Open Label:** YES **Cluster RCT:**
Participants	**Baseline Characteristics** Intervention (tonsillotomi) ● *Age, mean (sd)*: 5.8 ● *Males, %*: 63 ● *Sample size, n*: 53 Control (tonsillektomi) ● *Age, mean (sd)*: 5.8 ● *Males, %*: 63 ● *Sample size, n*: 53 **Included criteria:** Patients from the Otolaryngology Faculty Practice and NYMCPediatric Otolaryngology Clinic requiring adenotonsillectomyfor obstructive sleep disordered breathing as evidence by caretaker'sreports of snoring, gasping, apnea, restless sleep,frequent awakenings, enuresis, and daytime somnolence wererecruited **Excluded criteria:** Exclusion criteria included craniofacial dysmorphism, cerebralpalsy, asymmetrical tonsillar hypertrophy with suspectedlymphoma, history of peritonsillar abscesses, chronic tonsillitis,bleeding disorders, and previous adenotonsillectomy.
Interventions	**Intervention Characteristics** Intervention (tonsillotomi) ● *Number of surgeons, n*: 2 ● *Surgical technique*: Intracapsular coblation technique ● *Surgical time (minutes), mean(sd)*: 20.2(5.8) ● *Fraction of tonsil removed, %*: Intracapsular ● *Adenectomy, %*: 100 Control (tonsillektomi) ● *Number of surgeons, n*: 2 ● *Surgical technique*: Extracapsular electrocautery tonsillectomy ● *Surgical time (minutes), mean(sd)*: 21.6 (5.7)

	● *Fraction of tonsil removed, %*: extracapsular ● *Adenectomy, %*: 100
Outcomes	*Post-operative pain, days untill painfree* ● **Outcome type**: ContinuousOutcome ● **Measure names**: ["Baseline", "0-30 days follow up"] *Resume of normal diet* ● **Outcome type**: ContinuousOutcome ● **Measure names**: ["Baseline", "0-30 days follow up"] *Return to daily activities* ● **Outcome type**: ContinuousOutcome ● **Measure names**: ["Baseline", "0-30 days follow up"] *Primary haemorage (primær reblødning)* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"] *Secundary haemorage (sekundær reblødning)* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"] *Relief of symptoms (remission af symptomer)* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"] *Regrowth of tonsil (tonsilvækst ved follow-up)* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"] *Readmission because of pain (genindlæggelser pga. smereter)* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"] *Readmission because of dehydration (genindlæggelser pga. dehydrering)* ● **Outcome type**: DichotomousOutcome

	● **Measure names**: ["Baseline", "0-24 hours follow up", "1-14 days follow up", "min 6 mo follow up"]
Identification	**Sponsorship source:** **Country:** USA **Setting:** Otolaryngology Faculty Practice and NYMC Pediatric Otolaryngology Clini **Comments:** **Authors name:** Wilson **Institution:** New York Eye andEar Infirmary **Email:** **Address:**
Notes	*Birgitte Holm Petersen* on 23/08/2015 04:38 **Baseline Characteristics** To tonsillotomi grupper. Alder er median *Birgitte Holm Petersen* on 23/08/2015 04:52 **Dichotomous Outcomes** Ikke angivet om det er primær el sekundær blødn

Risk of bias table

Bias	Authors' judgement	Support for judgement
Sequence Generation	Unclear risk	Quote: "randomized in stratified permuted blocks of six patients."
Allocation concealment	Unclear risk	Judgement Comment: Not described
Blinding of participants and personnel	Low risk	Quote: "Surgeon was blinded to which device to use until the morning of surgery before induction of anesthesia. Patients, parents, and study coordinator were blinded to which device was used."
Blinding of outcome assessors	Low risk	Quote: "were randomized in stratified permuted blocks of six patients. Surgeon was blinded to which device to use until the morning of surgery before induction of anesthesia. Patients, parents, and study coordinator were blinded to which device was used."

Incomplete outcome data	High risk	Judgement Comment: per protocol analysis and not intention to treat analysis were done. No describtion of reasons for lost to follow-up
Selective outcome reporting	Low risk	
Other sources of bias	Low risk	

Footnotes

Characteristics of excluded studies

Arya 2005

Reason for exclusion	Wrong patient population

Cantarella 2012

Reason for exclusion	Wrong study design

Coticchia 2006

Reason for exclusion	Wrong intervention

Dai 2014

Reason for exclusion	Wrong outcomes

Mitchell 2007

Reason for exclusion	Wrong study design

Moriniere 2013

Reason for exclusion	Wrong study design

Reichel 2007

Reason for exclusion	Wrong study design

Wood 2011

Reason for exclusion	Wrong outcomes

Zhang 2014

Reason for exclusion	Wrong study design

Footnotes

Characteristics of studies awaiting classification

Footnotes

Characteristics of ongoing studies

Footnotes

Summary of findings tables

Additional tables

References to studies

Included studies

Bitar 2008

Bitar,M. A.; Rameh,C.. Microdebrider-assisted partial tonsillectomy: short- and long-term outcomes. European archives of oto-rhino-laryngology 2008;265(4):459-463. [DOI: 10.1007/s00405-007-0462-2]

Chan 2004

Chan KH.; Friedman NR.; Allen GC.; Yaremchuk K.; Wirtschafter A.; Bikhazi N.; Bernstein JM.; Kelley PE.; Lee KC.. Randomized, controlled, multisite study of intracapsular tonsillectomy using low-temperature plasma excision.. Archives of otolaryngology--head & neck surgery 2004;130(11):1303-7. [DOI: 10.1001/archotol.130.11.1303]

Chang 2005

Chang, K. W.. Randomized controlled trial of Coblation versus electrocautery tonsillectomy. Otolaryngology--head and neck surgery : official journal of American Academy of Otolaryngology-Head and Neck Surgery 2005;132(2):273-80. [DOI: 10.1016/j.otohns.2004.11.002]

Chang 2008

Chang, K. W.. Intracapsular versus subcapsular coblation tonsillectomy. Otolaryngology - Head and Neck Surgery 2008;138(2):153-157.e1. [DOI: http://dx.doi.org/10.1016/j.otohns.2007.11.006]

Densert 2001

Densert, O.; Desai, H.; Eliasson, A.; Frederiksen, L.; Andersson, D.; Olaison, J.; Widmark, C.. Tonsillotomy in children with tonsillar hypertrophy. ACTA OTO-LARYNGOLOGICA 2001;121(7):854-8. [DOI:]

Derkay 2006

Derkay,C. S.; Darrow,D. H.; Welch,C.; Sinacori,J. T.. Post-tonsillectomy morbidity and quality of life in pediatric patients with obstructive tonsils and adenoid: microdebrider vs electrocautery. Otolaryngology--head and neck surgery : official journal of American Academy of Otolaryngology-Head and Neck Surgery 2006;134(1):114-120. [DOI: S0194-5998(05)01997-2 [pii]]

Ericsson 2006

Ericsson, E.; Wadsby, M.; Hultcrantz, E.. Pre-surgical child behavior ratings and pain management after two different techniques of tonsil surgery. International Journal of Pediatric Otorhinolaryngology 2006;70(10):1749-1758. [DOI: http://dx.doi.org/10.1016/j.ijporl.2006.05.017]

Ericsson 2006a

Ericsson, E.; Graf, J.; Hultcrantz, E.. Pediatric tonsillotomy with radiofrequency technique: long-term follow-up. The Laryngoscope 2006;116(10):1851-7. [DOI: 10.1097/01.mlg.0000234941.95636.e6]

Ericsson 2009

Ericsson, E.; Lundeborg, I.; Hultcrantz, E.. Child behavior and quality of life before and after tonsillotomy versus tonsillectomy. International journal of pediatric otorhinolaryngology 2009;73(9):1254-62. [DOI: 10.1016/j.ijporl.2009.05.015]

Hultcrantz 1999

Hultcrantz, E.; Linder, A.; Markstrom, A.. Tonsillectomy or tonsillotomy?--A randomized study comparing postoperative pain and long-term effects. International journal of pediatric otorhinolaryngology 1999;51(3):171-6. [DOI: S0165587699002748 [pii]]

Hultcrantz 2004

Hultcrantz,E.; Ericsson,E.. Pediatric tonsillotomy with the radiofrequency technique: less morbidity and pain. The Laryngoscope 2004;114(5):871-877. [DOI: 00005537-200405000-00016 [pii]]

Hultcrantz 2005

Hultcrantz E; Linder A; Markstrom A. Long-term effects of intracapsular partial tonsillectomy (tonsillotomy) compared with full tonsillectomy. 2005;69:463-469. [DOI: 10.1016/j.ijporl.2004.11.010]

Korkmaz 2008

Korkmaz O; Bektas D; Cobanoglu B; Caylan R. Partial tonsillectomy with scalpel in children with obstructive tonsillar hypertrophy.. International journal of pediatric otorhinolaryngology 2008;72(7):1007-1012. [DOI: http://dx.doi.org/10.1016/j.ijporl.2008.03.003]

Lister 2006

Lister,M. T.; Cunningham,M. J.; Benjamin,B.; Williams,M.; Tirrell,A.; Schaumberg,D. A.; Hartnick,C. J.. Microdebrider tonsillotomy vs electrosurgical tonsillectomy: a randomized, double-blind, paired control study of postoperative pain. Archives of Otolaryngology--Head & Neck Surgery 2006;132(6):599-604. [DOI: 132/6/599 [pii]]

Park 2007

Park,A.; Proctor,M. D.; Alder,S.; Muntz,H.. Subtotal bipolar tonsillectomy does not decrease postoperative pain compared to total monopolar tonsillectomy. International journal of pediatric otorhinolaryngology 2007;71(8):1205-1210. [DOI: 10.1016/j.ijporl.2007.04.010]

Pruegsanusak 2010

Pruegsanusak, K.; Wongsuwan, K.; Wongkittithawon, J.. A randomized controlled trial for perioperative morbidity in microdebrider versus cold instrument dissection tonsillectomy. Journal of the Medical Association of Thailand 2010;93(5):558-565. [DOI:]

Sobol 2006

Sobol,S. E.; Wetmore,R. F.; Marsh,R. R.; Stow,J.; Jacobs,I. N.. Postoperative recovery after microdebrider intracapsular or monopolar electrocautery tonsillectomy: a prospective, randomized, single-blinded study. Archives of Otolaryngology--Head & Neck Surgery 2006;132(3):270-274. [DOI: 132/3/270 [pii]]

Wilson 2009

Wilson, Y. L.; Merer, D. M.; Moscatello, A. L.. Comparison of three common tonsillectomy techniques: a prospective randomized, double-blinded clinical study. The Laryngoscope 2009;119(1):162-70. [DOI: 10.1002/lary.20024]

Excluded studies

Arya 2005

Arya,A. K.; Donne,A.; Nigam,A.. Double-blind randomized controlled study of coblation tonsillotomy versus coblation tonsillectomy on postoperative pain in children. Clinical otolaryngology 2005;30(3):226-229. [DOI: http://dx.doi.org/10.1111/j.1365-2273.2005.00970.x]

Cantarella 2012

Cantarella G; Viglione S; Forti S; Minetti A; Pignataro L. Comparing postoperative quality of life in children after microdebrider intracapsular tonsillotomy and tonsillectomy. Auris, nasus, larynx 2012;39(4):407-10. [DOI: 10.1016/j.anl.2011.10.012]

Coticchia 2006

Coticchia, J. M.; Yun, R. D.; Nelson, L.; Koempel, J.. Temperature-controlled radiofrequency treatment of tonsillar hypertrophy for reduction of upper airway obstruction in pediatric patients. 2006;132(4):425-30. [DOI: 10.1001/archotol.132.4.425]

Dai 2014

Dai, Z. Y.; Huang, D. Y.; Zhou, C. Y.. Effects of partial tonsillectomy on the immune functions of children with obstructive sleep apnea-hypopnea syndrome at early stage. Genetics and molecular research : GMR 2014;13(2):3895-902. [DOI: 10.4238/2014.January.24.15]

Mitchell 2007

Mitchell, R. B.; Kelly, J.. Behavioral changes in children with mild sleep-disordered breathing or obstructive sleep apnea after adenotonsillectomy. The Laryngoscope 2007;117(9):1685-8. [DOI: 10.1097/MLG.0b013e318093edd7]

Moriniere 2013

Moriniere, S.; Roux, A.; Bakhos, D.; Trijolet, J. P.; Pondaven, S.; Pinlong, E.; Lescanne, E.. Radiofrequency tonsillotomy versus bipolar scissors tonsillectomy for the treatment of OSAS in children: a prospective study. Eur Ann Otorhinolaryngol Head Neck Dis 2013;130(2):67-72. [DOI: 10.1016/j.anorl.2012.06.002]

Reichel 2007

Reichel,O.; Mayr,D.; Winterhoff,J.; de la Chaux,R.; Hagedorn,H.; Berghaus,A.. Tonsillotomy or tonsillectomy?--a prospective study comparing histological and immunological findings in recurrent tonsillitis and tonsillar hyperplasia. European archives of oto-rhino-laryngology : official journal of the European Federation of Oto-Rhino-Laryngological Societies (EUFOS) : affiliated with the German Society for Oto-Rhino-Laryngology - Head and Neck Surgery 2007;264(3):277-284. [DOI: 10.1007/s00405-006-0162-3 [doi]]

Wood 2011

Wood, J. M.; Harris, P. K.; Woods, C. M.; McLean, S. C.; Esterman, A.; Carney, A. S.. Quality of life following surgery for sleep disordered breathing: subtotal reduction adenotonsillectomy versus adenotonsillectomy in Australian children. ANZ journal of surgery 2011;81(5):340-4. [DOI: 10.1111/j.1445-2197.2010.05604.x]

Zhang 2014

Zhang Q.; Li D.; Wang H.. Long term outcome of tonsillar regrowth after partial tonsillectomy in children with obstructive sleep apnea.. Auris, nasus, larynx 2014;41(3):299-302. [DOI: 10.1016/j.anl.2013.12.005]

Studies awaiting classification

Ongoing studies

Other references

Additional references

Other published versions of this review

Data and analyses

1 Intervention (tonsillotomi) vs Control (tonsillektomi)

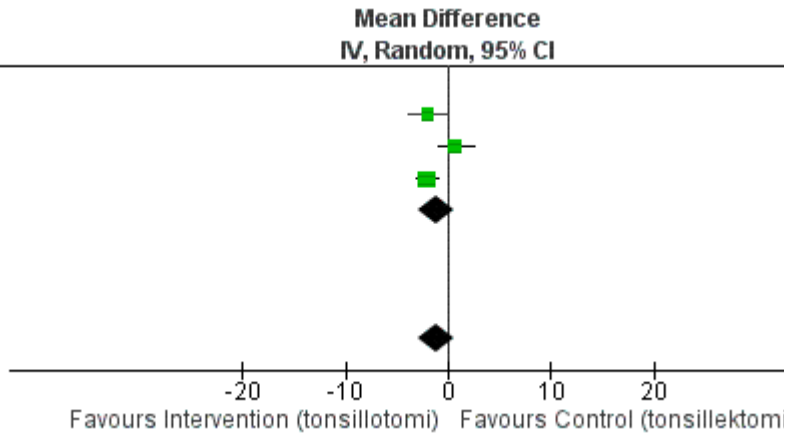
Outcome or Subgroup	Studies	Participants	Statistical Method	Effect Estimate
1.1 Post-operative pain, days untill painfree	3	208	Mean Difference (IV, Random, 95% CI)	-1.18 [-2.95, 0.58]
1.1.1 0-30 days follow up	3	208	Mean Difference (IV, Random, 95% CI)	-1.18 [-2.95, 0.58]
1.2 Resume of normal diet	3	310	Mean Difference (IV, Random, 95% CI)	-2.06 [-2.97, -1.16]
1.2.1 0-30 days follow up	3	310	Mean Difference (IV, Random, 95% CI)	-2.06 [-2.97, -1.16]
1.3 Return to daily activities	3	310	Mean Difference (IV, Random, 95% CI)	-2.27 [-3.56, -0.99]
1.3.1 0-30 days follow up	3	310	Mean Difference (IV, Random, 95% CI)	-2.27 [-3.56, -0.99]
1.4 Primary haemorage (primær reblødning)	11		Risk Ratio (IV, Random, 95% CI)	Subtotals only
1.4.1 0-24 hours follow up	11	1024	Risk Ratio (IV, Random, 95% CI)	1.22 [0.33, 4.51]
1.5 Secundary haemorage (sekundær reblødning)	8		Risk Ratio (IV, Random, 95% CI)	Subtotals only
1.5.1 1-14 days follow up	8	564	Risk Ratio (IV, Random, 95% CI)	0.39 [0.09, 1.73]
1.6 Relief of symptoms (remission af symptomer)	2		Risk Ratio (IV, Random, 95% CI)	Subtotals only
1.6.1 1-14 days follow up	2	184	Risk Ratio (IV, Random, 95% CI)	1.00 [0.97, 1.03]
1.6.2 min 6 mo follow up	2	184	Risk Ratio (IV, Random, 95% CI)	0.99 [0.93, 1.05]

1.7 Regrowth of tonsil (tonsilvækst ved follow-up)	5		Risk Ratio (IV, Random, 95% CI)	Subtotals only
1.7.1 min 6 mo follow up	5	401	Risk Ratio (IV, Random, 95% CI)	2.99 [0.32, 27.74]
1.8 Readmission because of pain (genindlæggelser pga. smereter)	1		Risk Ratio (IV, Fixed, 95% CI)	No totals
1.8.1 1-14 days follow up	1		Risk Ratio (IV, Fixed, 95% CI)	No totals
1.9 Readmission because of dehydration (genindlæggelser pga. dehydrering)	4		Risk Ratio (IV, Random, 95% CI)	Subtotals only
1.9.1 1-14 days follow up	3	299	Risk Ratio (IV, Random, 95% CI)	0.26 [0.04, 1.58]
1.9.2 0-24 hours follow up	1	68	Risk Ratio (IV, Random, 95% CI)	Not estimable
1.11 Relief of symptoms (6 years follow up)	1	37	Risk Ratio (M-H, Random, 95% CI)	0.74 [0.47, 1.17]
1.12 Regrowth (6 months)	2	84	Risk Ratio (M-H, Random, 95% CI)	2.87 [0.31, 26.51]
1.13 Pain score (0-24 hours)	1	40	Mean Difference (IV, Random, 95% CI)	-0.95 [-1.71, -0.19]
1.14 Pain score (1-14 dage)	1	40	Std. Mean Difference (IV, Random, 95% CI)	0.00 [-0.62, 0.62]

Figures

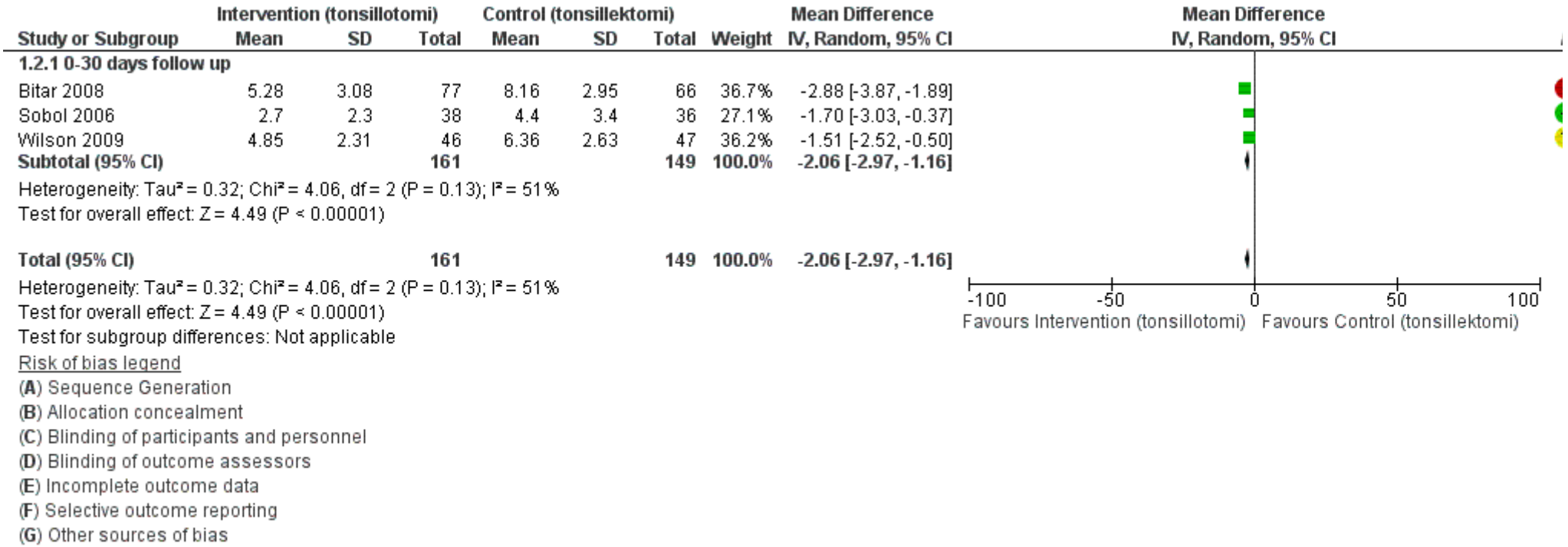
Figure 1 (Analysis 1.1)

Study or Subgroup	Intervention (tonsillotomi) Mean	SD	Total	Control (tonsillektomi) Mean	SD	Total	Weight	Mean Difference IV, Random, 95% CI
1.1.1 0-30 days follow up								
Hultcrantz 1999	5	2	21	7	4	20	29.4%	-2.00 [-3.95, -0.05]
Sobol 2006	4.6	3.8	38	3.9	3.8	36	31.8%	0.70 [-1.03, 2.43]
Wilson 2009	4.54	2.17	46	6.64	3.14	47	38.9%	-2.10 [-3.20, -1.00]
Subtotal (95% CI)			**105**			**103**	**100.0%**	**-1.18 [-2.95, 0.58]**
Heterogeneity: Tau² = 1.77; Chi² = 7.57, df = 2 (P = 0.02); I² = 74%								
Test for overall effect: Z = 1.31 (P = 0.19)								
Total (95% CI)			**105**			**103**	**100.0%**	**-1.18 [-2.95, 0.58]**
Heterogeneity: Tau² = 1.77; Chi² = 7.57, df = 2 (P = 0.02); I² = 74%								
Test for overall effect: Z = 1.31 (P = 0.19)								
Test for subgroup differences: Not applicable								



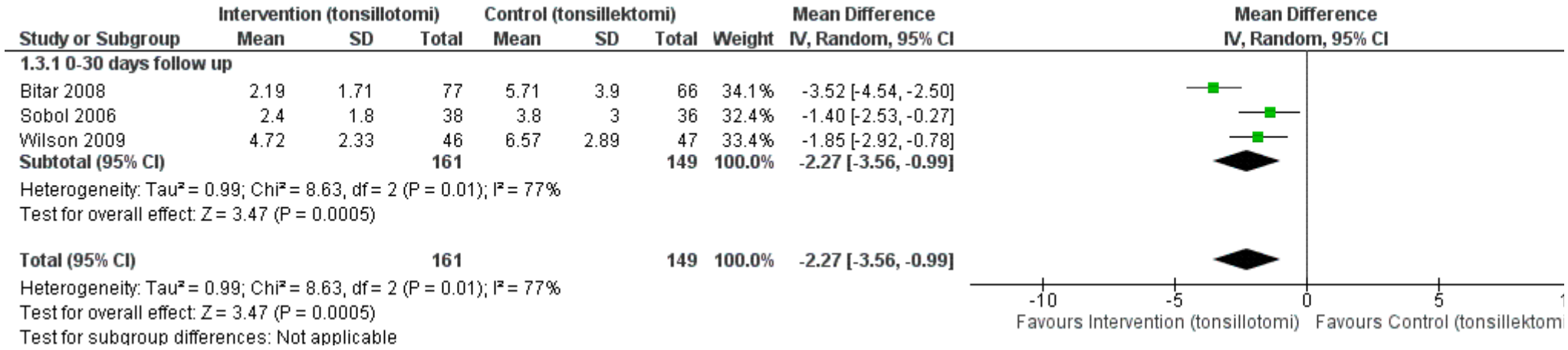
Forest plot of comparison: 1 Intervention (tonsillotomi) vs Control (tonsillektomi), outcome: 1.1 Post-operative pain, days untill painfree.

Figure 2 (Analysis 1.2)



Forest plot of comparison: 1 Intervention (tonsillotomi) vs Control (tonsillektomi), outcome: 1.2 Resume of normal diet.

Figure 3 (Analysis 1.3)



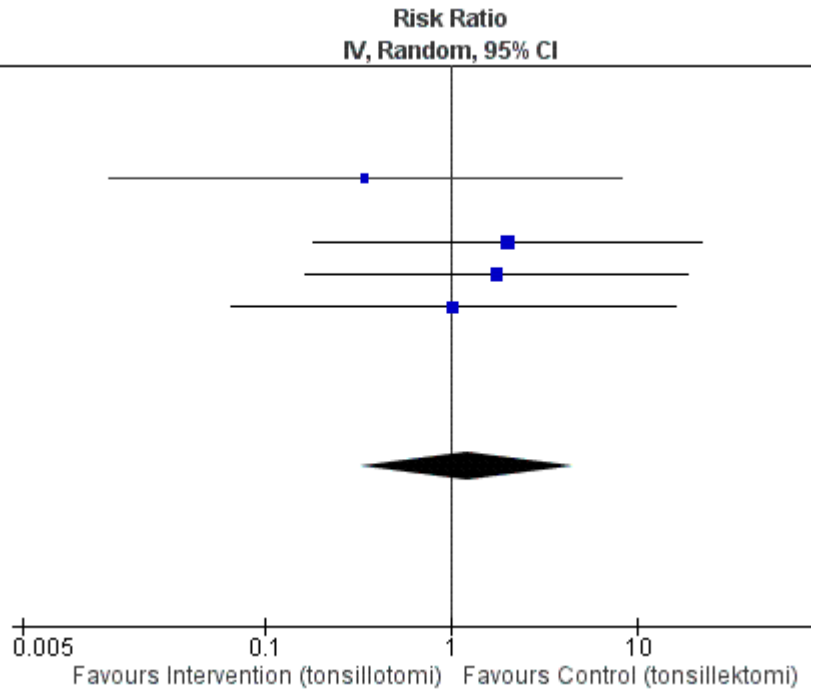
Forest plot of comparison: 1 Intervention (tonsillotomi) vs Control (tonsillektomi), outcome: 1.3 Return to daily activities.

Figure 4 (Analysis 1.4)

Study or Subgroup	Intervention (tonsillotomi) Events	Total	Control (tonsillektomi) Events	Total	Weight	Risk Ratio IV, Random, 95% CI
1.4.1 0-24 hours follow up						
Bitar 2008	0	77	0	66		Not estimable
Chang 2005	0	52	0	49		Not estimable
Chang 2008	0	34	1	35	17.0%	0.34 [0.01, 8.13]
Densert 2001	0	20	0	20		Not estimable
Derkay 2006	2	150	1	150	29.8%	2.00 [0.18, 21.82]
Hultcrantz 2004	2	49	1	43	30.4%	1.76 [0.16, 18.69]
Korkmaz 2008	1	40	1	41	22.7%	1.02 [0.07, 15.83]
Lister 2006	0	12	0	13		Not estimable
Park 2007	0	19	0	21		Not estimable
Pruegsanusak 2010	0	20	0	20		Not estimable
Wilson 2009	0	46	0	47		Not estimable
Subtotal (95% CI)		**519**		**505**	**100.0%**	**1.22 [0.33, 4.51]**
Total events	5		4			

Heterogeneity: Tau² = 0.00; Chi² = 0.89, df = 3 (P = 0.83); I² = 0%

Test for overall effect: Z = 0.30 (P = 0.76)

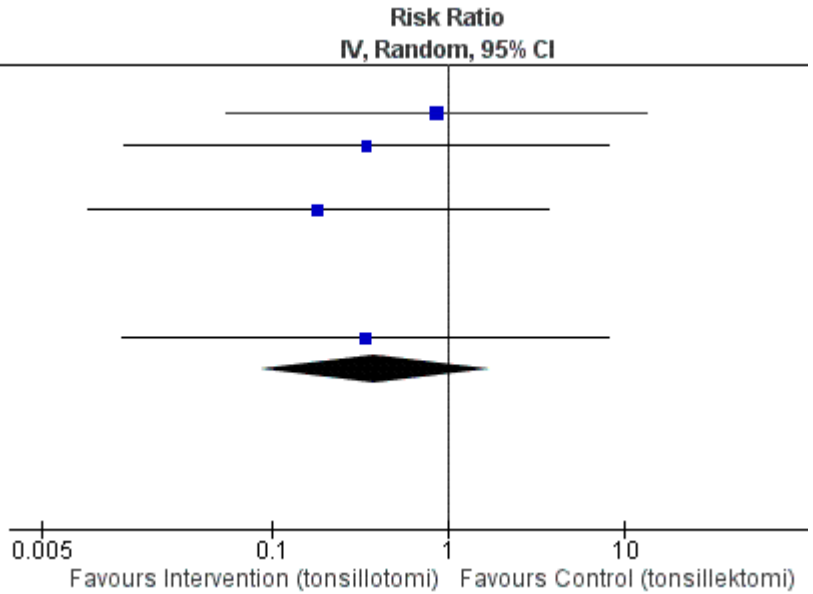


Forest plot of comparison: 1 Intervention (tonsillotomi) vs Control (tonsillektomi), outcome: 1.4 Primary haemorage (primær reblødning).

Figure 5 (Analysis 1.5)

Study or Subgroup	Intervention (tonsillotomi) Events	Total	Control (tonsillektomi) Events	Total	Weight	Risk Ratio IV, Random, 95% CI
1.5.1 1-14 days follow up						
Bitar 2008	1	77	1	66	29.8%	0.86 [0.05, 13.44]
Chan 2004	0	27	1	28	22.7%	0.35 [0.01, 8.12]
Chang 2005	0	52	0	49		Not estimable
Ericsson 2009	0	35	2	32	25.1%	0.18 [0.01, 3.68]
Lister 2006	0	12	0	13		Not estimable
Park 2007	0	19	0	21		Not estimable
Pruegsanusak 2010	0	20	0	20		Not estimable
Wilson 2009	0	46	1	47	22.4%	0.34 [0.01, 8.15]
Subtotal (95% CI)		**288**		**276**	**100.0%**	**0.39 [0.09, 1.73]**
Total events	1		5			

Heterogeneity: Tau² = 0.00; Chi² = 0.57, df = 3 (P = 0.90); I² = 0%
Test for overall effect: Z = 1.24 (P = 0.21)

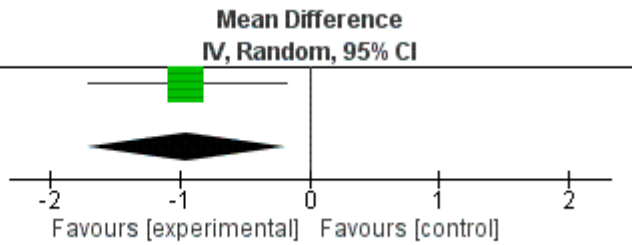


Forest plot of comparison: 1 Intervention (tonsillotomi) vs Control (tonsillektomi), outcome: 1.5 Secundary haemorage (sekundær reblødning).

Figure 6 (Analysis 1.13)

Study or Subgroup	Intervention (tonsillotomi) Mean	SD	Total	Control (tonsillektomi) Mean	SD	Total	Weight	Mean Difference IV, Random, 95% CI
Pruegsanusak 2010	2.45	0.94	20	3.4	1.47	20	100.0%	-0.95 [-1.71, -0.19]
Total (95% CI)			**20**			**20**	**100.0%**	**-0.95 [-1.71, -0.19]**

Heterogeneity: Not applicable
Test for overall effect: Z = 2.43 (P = 0.01)

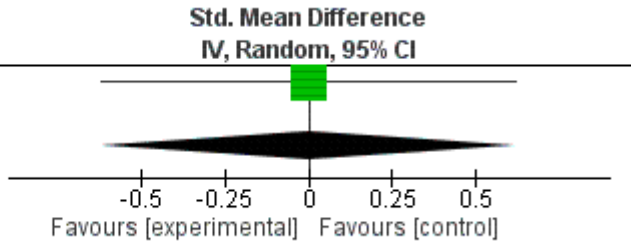


Forest plot of comparison: 1 Intervention (tonsillotomi) vs Control (tonsillektomi), outcome: 1.13 Pain score (0-24 hours).

Figure 7 (Analysis 1.14)

Study or Subgroup	Intervention (tonsillotomi) Mean	SD	Total	Control (tonsillektomi) Mean	SD	Total	Weight	Std. Mean Difference IV, Random, 95% CI
Pruegsanusak 2010	0.2	0.52	20	0.2	0.41	20	100.0%	0.00 [-0.62, 0.62]
Total (95% CI)			**20**			**20**	**100.0%**	**0.00 [-0.62, 0.62]**

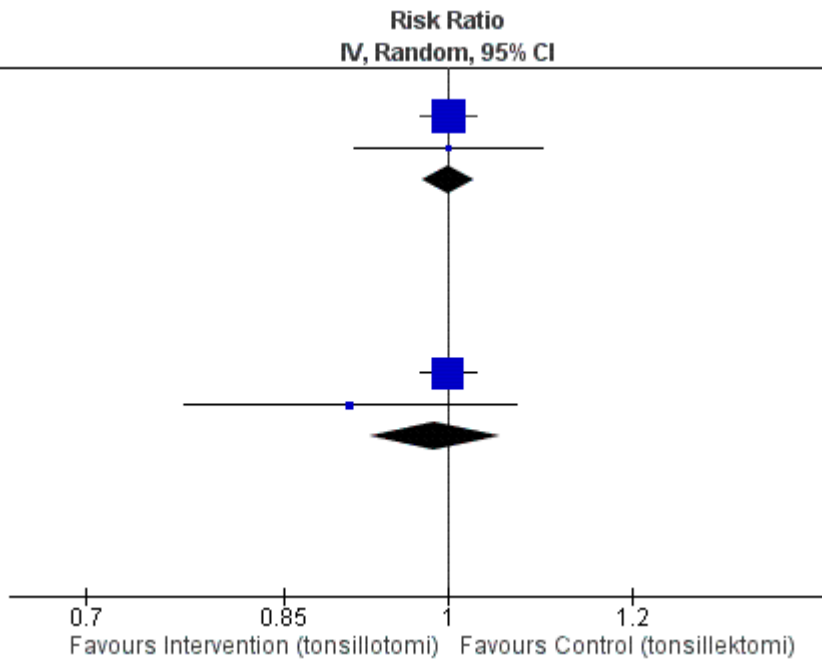
Heterogeneity: Not applicable
Test for overall effect: Z = 0.00 (P = 1.00)



Forest plot of comparison: 1 Intervention (tonsillotomi) vs Control (tonsillektomi), outcome: 1.14 Pain score (1-14 dage).

Figure 8 (Analysis 1.6)

Study or Subgroup	Intervention (tonsillotomi) Events	Total	Control (tonsillektomi) Events	Total	Weight	Risk Ratio IV, Random, 95% CI
1.6.1 1-14 days follow up						
Bitar 2008	77	77	66	66	91.9%	1.00 [0.97, 1.03]
Hultcrantz 1999	21	21	20	20	8.1%	1.00 [0.91, 1.10]
Subtotal (95% CI)		**98**		**86**	**100.0%**	**1.00 [0.97, 1.03]**
Total events	98		86			
Heterogeneity: Tau² = 0.00; Chi² = 0.00, df = 1 (P = 1.00); I² = 0%						
Test for overall effect: Z = 0.00 (P = 1.00)						
1.6.2 min 6 mo follow up						
Bitar 2008	77	77	66	66	86.5%	1.00 [0.97, 1.03]
Hultcrantz 1999	19	21	20	20	13.5%	0.91 [0.77, 1.07]
Subtotal (95% CI)		**98**		**86**	**100.0%**	**0.99 [0.93, 1.05]**
Total events	96		86			
Heterogeneity: Tau² = 0.00; Chi² = 1.30, df = 1 (P = 0.25); I² = 23%						
Test for overall effect: Z = 0.40 (P = 0.69)						

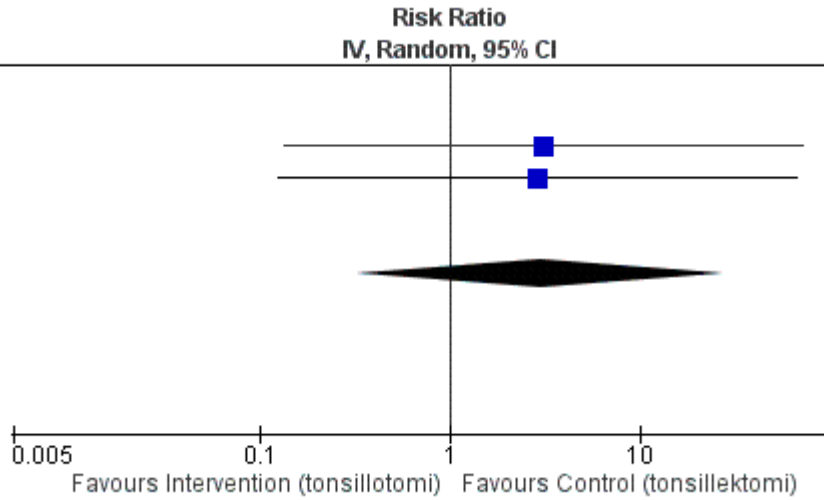


Forest plot of comparison: 1 Intervention (tonsillotomi) vs Control (tonsillektomi), outcome: 1.6 Relief of symptoms (remission af symptomer).

Figure 9 (Analysis 1.7)

Study or Subgroup	Intervention (tonsillotomi) Events	Total	Control (tonsillektomi) Events	Total	Weight	Risk Ratio IV, Random, 95% CI
1.7.1 min 6 mo follow up						
Bitar 2008	0	77	0	66		Not estimable
Chan 2004	1	27	0	28	49.8%	3.11 [0.13, 73.11]
Densert 2001	1	22	0	21	50.2%	2.87 [0.12, 66.75]
Ericsson 2006a	0	43	0	49		Not estimable
Korkmaz 2008	0	35	0	33		Not estimable
Subtotal (95% CI)		**204**		**197**	**100.0%**	**2.99 [0.32, 27.74]**
Total events	2		0			

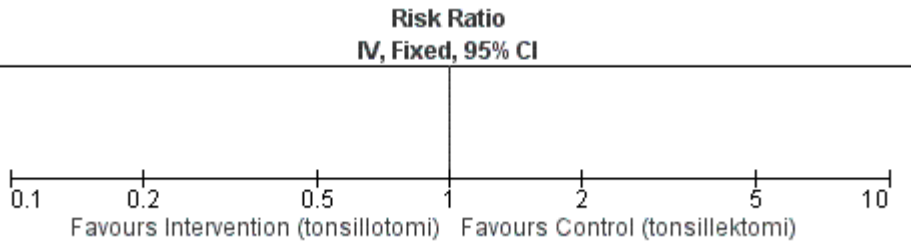
Heterogeneity: Tau² = 0.00; Chi² = 0.00, df = 1 (P = 0.97); I² = 0%
Test for overall effect: Z = 0.96 (P = 0.34)



Forest plot of comparison: 1 Intervention (tonsillotomi) vs Control (tonsillektomi), outcome: 1.7 Regrowth of tonsil (tonsilvækst ved follow-up).

Figure 10 (Analysis 1.8)

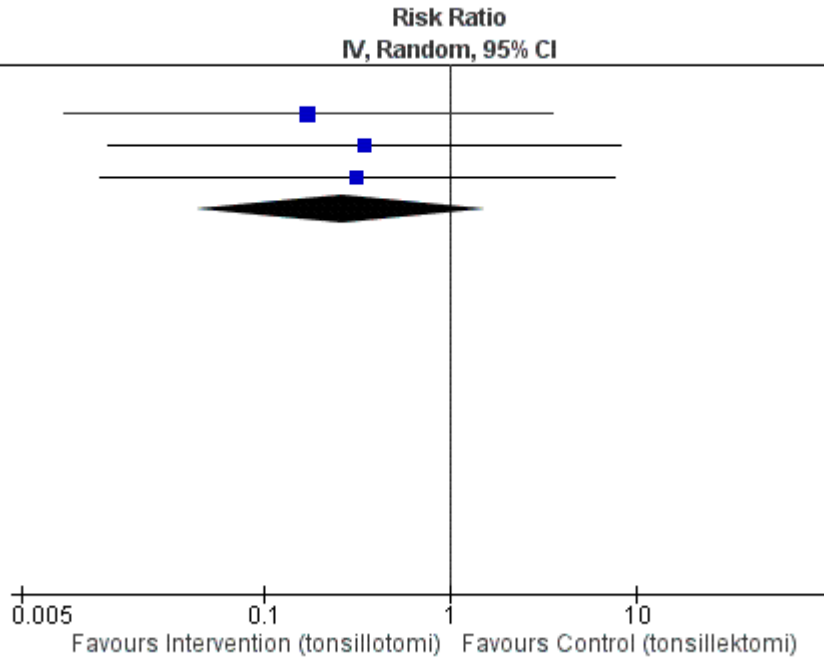
Study or Subgroup	Intervention (tonsillotomi) Events	Total	Control (tonsillektomi) Events	Total	Risk Ratio IV, Fixed, 95% CI
1.8.1 1-14 days follow up					
Ericsson 2006	0	49	0	43	Not estimable



Forest plot of comparison: 1 Intervention (tonsillotomi) vs Control (tonsillektomi), outcome: 1.8 Readmission because of pain (genindlæggelser pga. smereter).

Figure 11 (Analysis 1.9)

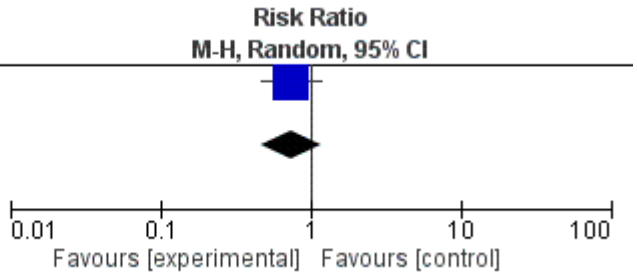
Study or Subgroup	Intervention (tonsillotomi) Events	Total	Control (tonsillektomi) Events	Total	Weight	Risk Ratio IV, Random, 95% CI
1.9.1 1-14 days follow up						
Bitar 2008	0	77	2	66	35.5%	0.17 [0.01, 3.52]
Chan 2004	0	27	1	28	32.4%	0.35 [0.01, 8.12]
Chang 2005	0	52	1	49	32.1%	0.31 [0.01, 7.54]
Subtotal (95% CI)		**156**		**143**	**100.0%**	**0.26 [0.04, 1.58]**
Total events	0		4			
Heterogeneity: Tau² = 0.00; Chi² = 0.12, df = 2 (P = 0.94); I² = 0%						
Test for overall effect: Z = 1.46 (P = 0.14)						
1.9.2 0-24 hours follow up						
Chang 2008	0	34	0	34		Not estimable
Subtotal (95% CI)		**34**		**34**		**Not estimable**
Total events	0		0			
Heterogeneity: Not applicable						
Test for overall effect: Not applicable						



Forest plot of comparison: 1 Intervention (tonsillotomi) vs Control (tonsillektomi), outcome: 1.9 Readmission because of dehydration (genindlæggelser pga. dehydrering).

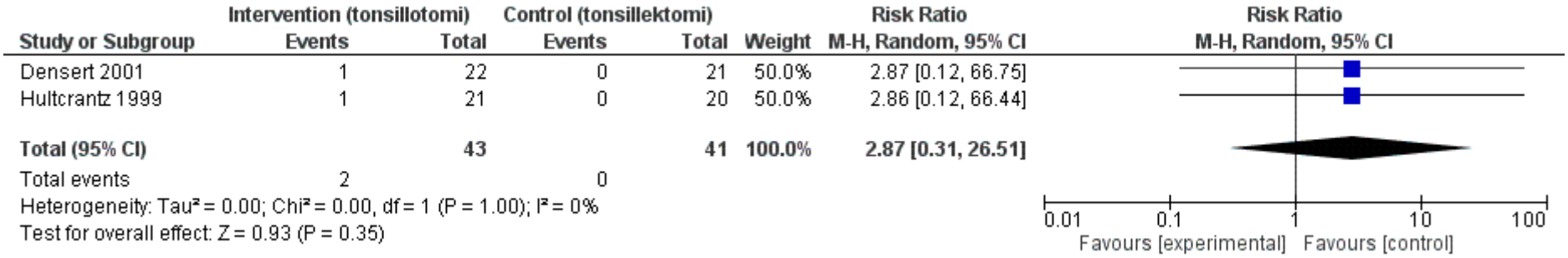
Figure 12 (Analysis 1.11)

Study or Subgroup	Intervention (tonsillotomi) Events	Total	Control (tonsillektomi) Events	Total	Weight	Risk Ratio M-H, Random, 95% CI
Hultcrantz 2005	11	19	14	18	100.0%	0.74 [0.47, 1.17]
Total (95% CI)		**19**		**18**	**100.0%**	**0.74 [0.47, 1.17]**
Total events	11		14			
Heterogeneity: Not applicable						
Test for overall effect: Z = 1.27 (P = 0.20)						



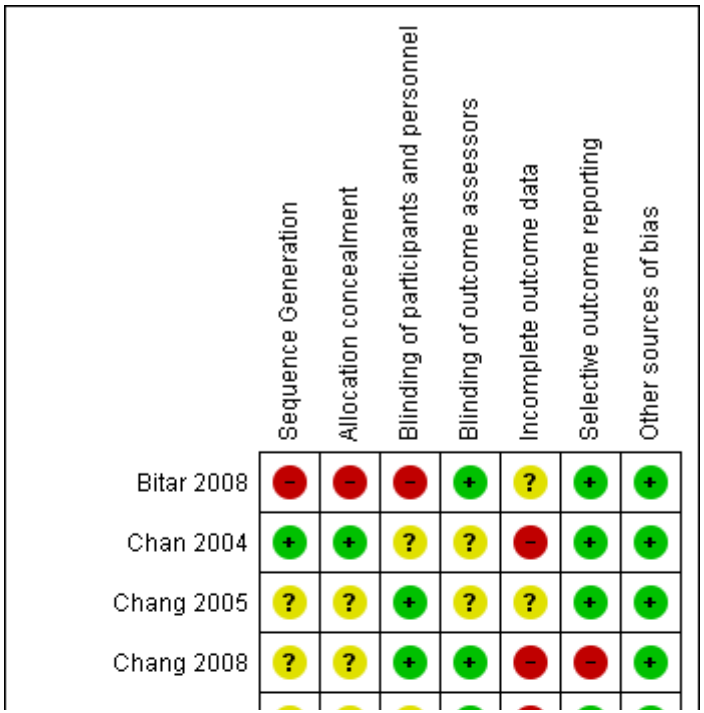
Forest plot of comparison: 1 Intervention (tonsillotomi) vs Control (tonsillektomi), outcome: 1.11 Relief of symptoms (6 years follow up).

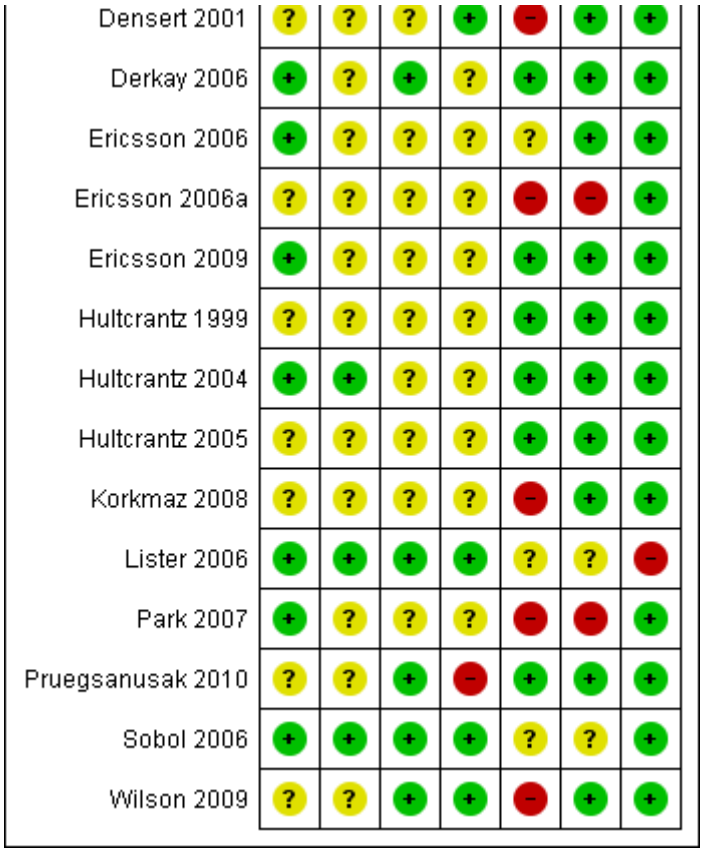
Figure 13 (Analysis 1.12)



Forest plot of comparison: 1 Intervention (tonsillotomi) vs Control (tonsillektomi), outcome: 1.12 Regrowth (6 months).

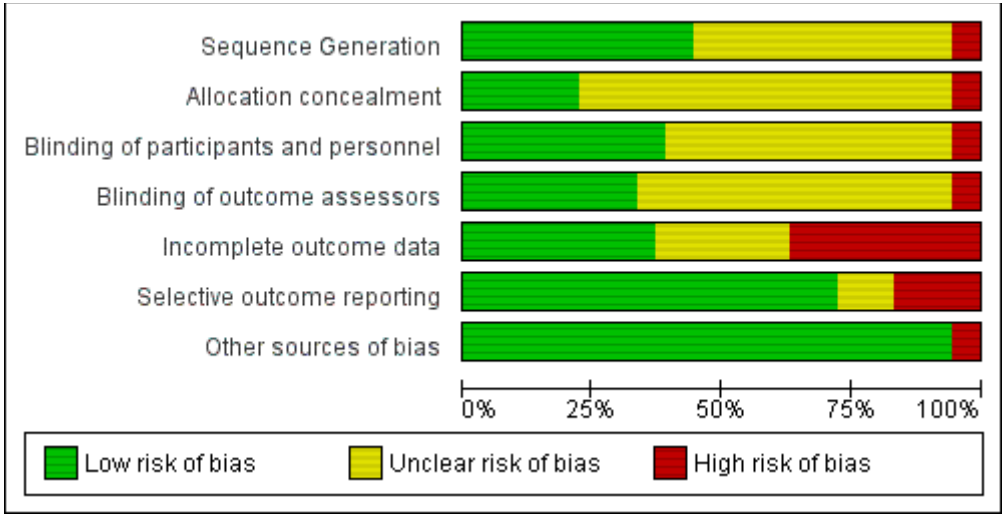
Figure 14





Risk of bias summary: review authors' judgements about each risk of bias item for each included study.

Figure 15



Risk of bias graph: review authors' judgements about each risk of bias item presented as percentages across all included studies.

Appendices