

Table 1. Characteristics of included studies – Foam-echo

Study	Participants (number, age, other important characteristics)	Comparison	Outcome measures	Comments	Risk of bias (per outcome measure)* †
<i>Included in systematic review Maheux-Lacroix, 2014 (9 studies)</i>					
Allahbadia, 1992	N at baseline: 129 Population: Subfertility	Intervention: sono-HSG Control: HSG Reference test: Laparoscopy	Sensitivity and specificity of sono-HSG and HSG.	Contrast of intervention: Saline + Air	Unclear (5/7: unclear; 2/7: low bias)
Allahbadia, 1993	N at baseline: 27 Population: Subfertility	Intervention: sono-HSG Control: HSG Reference test: Laparoscopy	Sensitivity and specificity of sono-HSG and HSG.	Contrast of intervention: Saline	Unclear (3/7: unclear; 4/7: low bias)
Allahbadia, 1994	N at baseline: 53 Population: Subfertility	Intervention: sono-HSG Control: HSG	Sensitivity and specificity of sono-HSG and HSG.	Contrast of intervention: Saline	Unclear (3/7: unclear; 4/7: low bias)

		Reference test: Laparoscopy			
Allahbadia, 1992 (2)	N at baseline: 50 Population: Subfertility	Intervention: sono-HSG Control: HSG Reference test: Laparoscopy	Sensitivity and specificity of sono- HSG and HSG.	Contrast of intervention: Saline + Air	Unclear (3/7: unclear; 4/7: low bias)
Battaglia 1996	N at baseline: 59 Population: Subfertility	Intervention: sono-HSG Control: HSG Reference test: Laparoscopy	Sensitivity and specificity of sono- HSG and HSG.	Contrast of intervention: Saline	Some concerns (1/7: unclear; 5/7: low bias; 1/7: high bias)
Dijkman, 2000	N at baseline: 100 Population: Subfertility	Intervention: sono-HSG Control: HSG Reference test: Laparoscopy	Sensitivity and specificity of sono- HSG and HSG.	Contrast of intervention: Saline + Galactose	Some concerns (6/7: low bias; 1/7: high bias)
Kozarzewski, 1995	N at baseline: 25 Population: Subfertility	Intervention: sono-HSG Control: HSG	Sensitivity and specificity of sono- HSG and HSG.	Contrast of intervention: Galactose	Unclear (4/7: unclear; 3/7: low bias)

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		Reference test: Laparoscopy			
Reis, 1998	N at baseline: 44 Population: Subfertility	Intervention: sono-HSG Control: HSG Reference test: Laparoscopy	Sensitivity and specificity of sono-HSG and HSG.	Contrast of intervention: Saline + Galactose	Unclear (3/7: unclear; 4/7: low bias)
Socolov, 2009	N at baseline: 95 Population: Subfertility	Intervention: sono-HSG Control: HSG Reference test: Laparoscopy	Sensitivity and specificity of sono-HSG and HSG.	Contrast of intervention: Saline + Air	Some concerns (2/7: unclear; 4/7: low bias; 1/7: high bias)
<i>Individual studies</i>					
Van Welie, 2022	N at baseline Intervention followed by control: 576 Control followed by intervention: 584	Intervention: Hysterosalpingo-foam sonography (HyFoSy) Control: Hysterosalpingography (HSG)	Concordance between HyFoSy and HSG, Pain score (measured by Visual Analogue Scale (VAS); ranging from 1.0 to 10.0 cm), miscarriage (defined as the presence of non-vitality on ultrasound or spontaneous loss of pregnancy)	Women were allowed to take pain medication (e.g. paracetamol or naproxen) before both tubal patency tests.	Some concerns

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	Age 33.0 (30.0 - 36.0) BMI: 23.4 (21.0 – 26.6)				
Dreyer, 2014	N at baseline Intervention: 19 Control: 20 Age (mean (IQR)) Intervention: 33.0 (6.0) Control: 31.5 (10.0) P=0.49 BMI (kg/m2) (mean (IQR)): Intervention: 20.8 (4.6) Control: 21.7 (6.2) <u>Subfertility type:</u> Primary subfertility:	Intervention: HyFoSy Control: HSG	Pain experienced during the procedure as measured by VAS scores (1.0–10.0 cm) obtained immediately after the examination. Prognostic chance on natural conception during the following 12 months Unilateral and bilateral proximal occlusion	No form of premedication was given before tubal patency testing.	High concerns

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	Intervention: 12/19 (63%) Control: 17/20 (85%) Secondary subfertility: Intervention: 7/19 (37%) Control: 3/20 (15%) P=0.30				
Serrano González, 2022	N at baseline Intervention: 111 Control: 99 Age Intervention: 34.63 years (SD 3.2) (range 25–40) Control: 32.06 years (SD 3.1) (range 24–37) P = < 0.001 Medical history related to the internal genital tract: Intervention; 0% (0/82) Control: 8.41% (9/107)	Intervention: HyFoSy Control: HSG	Pain measured by the VAS. Tubal patency	Patients were premedicated with oral azithromycin (1 g) the night before the test, and with a step 1 WHO Pain Ladder drug (Aneker, 2021) 1 h before the test.	High concerns

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	P=0.006				
Maxim, 2021	N at baseline Intervention: 29 Control: 27 Results are expressed as mean (low;high); Age Intervention: 31 (27.5;35) Control: 34 (30;36) P=0.1	Intervention: Hypos Control: HSG	Pain (VAS scale), side effects (such as vagal effects consisted of nausea and/or vomiting, dizziness, syncope, hypotension and bradycardia)	Women in both groups did not receive any pain medication before undergoing the procedure. Verbal anesthesia was used in all cases.	Some concerns

**For further details, see risk of bias table in the appendix*

† For the studies included in the systematic review of Maheux-Lacroix (2014) the RoB is based on the risk of bias and applicability concerns of the studies based on QUADAS-2 presented in the supplementary data of the systematic review. When ≥ 3 of the areas were labeled as unclear, the overall RoB was unclear.

VAS: Visual Analogue Scale