

Supplementary Table 1. Summary risk of bias assessment of Randomized Clinical trial according the Cochrane collaboration's risk of bias assessment tool

Trial (Author and year)	Random sequence generation (selection bias)	Allocation concealment (selection bias)	Blinding of outcome assessment (detection bias)	Incomplete outcome data (attrition bias)	Selective reporting (reporting bias)	Other sources of bias	Overall Risk of bias
Ugolini et al. [28] and Cerruto et al. [29]	Low risk Using a stratified blocked randomization	Unclear	Low risk Blinding in measurements	Low risk No dropouts or patient losses are reported	High risk Cost-effective analysis is not reported	Low risk No	High risk
Petrén et al. [5,26]	Unclear	Unclear	Low risk Blinding in measurements	Low risk 5 dropouts are reported but sample size remained sufficient	Low risk All outcomes that are of interest in the review have been reported	Low risk No	Unclear
Petrén and Brondemark [8]	Low risk Patients were randomly allocated	Low risk Sequentially numbered, opaque, sealed envelopes	Low risk Blinding in measurements	Low risk No dropouts or patient losses are reported	High risk Cost-effective analysis and expansion remained are not reported	Low risk No	High risk
Lippold et al. [18]	Low risk Using a stratified blocked randomization	Unclear	Unclear No information provided	Low risk 11 dropouts are reported but sample size remained sufficient	High risk Cost-effective analysis and expansion remained are not reported	Low risk No	High risk
Godoy et al. [9]	Low risk	Low risk Numbers randomly drawn	Low risk Blinding in measurements	Low risk	Low risk	Low risk No	Low risk

	Patients were randomly allocated	from a plastic bag		No dropouts or patient losses are reported	All interesting outcomes have been reported		
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Supplementary Table 2. Summary risk of bias assessment of the non-randomized studies according to the ROBINS-I tool

Risk of bias assessment						
	Response	Bukhari et al. [10]	Wong et al. [7]	Weyrich et al. [27]	Primožic et al. [30]	
Bias due to confounding		Low	Low	Low	Low	
Bias in selection of participants into the study		Low	Low	Low	Low	
Bias in classification of interventions		Low	Serious	Low	Low	
Bias due to deviations from intended interventions		Low	Low	Low	Low	
Bias due to missing data		Low	Low	Low	Low	
Bias in measurement of outcomes		Low	Moderate	Moderate	Moderate	
Bias in selection of reported result		Low	Low	Low	Moderate	
Overall bias		Low	Serious	Moderate	Moderate	
	Low					
	Moderate					
	Serious					

	Critical				
	No information				

Complete Search Strategy

PUBMED

"palatal expansion technique"[MeSH Terms] AND ("dentition, mixed"[MeSH Terms] OR "tooth, deciduous"[MeSH Terms])

THE COCHRANE LIBRARY AND TRIALS

Title, Abstract, Keyword: palatal expansion AND (mixed dentition OR deciduous teeth)

LILACS

(((((palatal expansion) or "PALATAL EXPANSION TECHNIC") or "PALATAL EXPANSION TECHNICS") or "PALATAL EXPANSION TECHNIC/AE") or "EXPANSION MAXILAR/AE") or "MAXILLARY EXPANSION/AE" [Palabras] and ((tooth deciduous) or "DECIDUOUS DENTITION") or "MIXED DENTITION" [Palabras]

WEB OF SCIENCE

(TS = (palatal expansion)) AND (TS = "tooth deciduous" OR "teeth deciduous" OR "mixed dentition")

GOOGLE SCHOLAR

unilateral posterior crossbite correction in mixed dentition or deciduous