

Table S1. Methodologic Index for Non-Randomized Studies (quote from Karem Slim, [12])

Methodological items for non-randomized studies	Score*
1. A clearly stated aim: the question addressed should be precise and relevant in the light of available literature	
2. Inclusion of consecutive patients: all patients potentially fit for inclusion (satisfying the criteria for inclusion) have been included in the study during the study period (no exclusion or details about the reasons for exclusion)	
3. Prospective collection of data: data were collected according to a protocol established before the beginning of the study	
4. Endpoints appropriate to the aim of the study: unambiguous explanation of the criteria used to evaluate the main outcome which should be in accordance with the question addressed by the study. Also, the endpoints should be assessed on an intention-to-treat basis	
5. Unbiased assessment of the study endpoint: blind evaluation of objective endpoints and double-blind evaluation of subjective endpoints. Otherwise, the reasons for not blinding should be stated	
6. Follow-up period appropriate to the aim of the study: the follow-up should be sufficiently long to allow the assessment of the main endpoint and possible adverse events	
7. Loss to follow up less than 5%: all patients should be included in the follow up. Otherwise, the proportion lost to follow up should not exceed the proportion experiencing the major endpoint	
8. Prospective calculation of the study size: information of the size of detectable difference of interest with a calculation of 95% confidence interval, according to the expected incidence of the outcome event, and information about the level for statistical significance and estimates of power when comparing the outcomes	
<i>Additional criteria in the case of comparative study</i>	
9. An adequate control group: having a gold standard diagnostic test or therapeutic intervention recognized as the optimal intervention according to the available published data	
10. Contemporary groups: control and studied groups should be managed during the same time period (no historical comparison)	
11. Baseline equivalence of groups: the groups should be similar regarding the criteria other than the studied endpoints. Absence of confounding factors that could bias the interpretation of the results	
12. Adequate statistical analyses: whether the statistics were in accordance with the type of study with the calculation of confidence intervals or relative risk	

*The items are scored 0 (not reported), 1 (reported but inadequate) or 2 (reported and adequate). The global ideal score is 16 for non-comparative studies and 24 for comparative studies.

Table S2. The MINORS score of included studies.

Evaluated study	Non-comparative studies score	Comparative studies score	Total score/ Full score
Helfand S C, 1994 [27]	2/1/2/2/1/1/0/0	-	9/16
Maekawa N, 2017 [31]	2/2/2/2/1/2/2/0	0/2/0/1	16/24
Kamoto S, 2020 [33]	2/2/2/2/1/2/2/0	-	13/16
Igase M, 2020 [32]	2/1/2/2/1/2/0/0	-	10/16
Forsberg E M V, 2023 [37]	2/2/2/2/1/2/2/0	1/2/1/1;	17/24
Michael S. Kent, 2009 [13]	2/0*/2/2/1/2/2/0	-	11/14
J.S.Fowles, 2015 [38]	2/2/2/2/1/2/2/0	2/2/1/1	19/24
Bih-Rong Wei, 2016 [22]	2/0*/2/2/1/2/2/0	-	9/14
Bih-Rong Wei, 2020 [42]	2/0*/2/2/1/2/2/0	-	11/14
Sarah Bernard, 2021 [48]	2/0*/2/2/1/2/2/0	-	11/14
Yu Gao, 2024 [24]	2/0*/2/2/1/2/2/0	-	11/14
Hiroyuki Tani, 2021 [45]	2/0*/2/2/1/2/2/0*	-	11/12
Qiang Li, 2021 [44]	2/0*/2/2/1/2/2/0	-	11/14
Esther Chon, 2015 [18]	2/0*/2/2/1/2/2/0	-	11/14
Elizabeth A. Wood, 2019 [47]	2/0*/2/2/1/2/2/0	-	11/14
Cheryl A. London, 2011 [50]	2/2/2/2/1/2/2/0	-	13/16
Shinya Fukumoto, 2013 [53]	2/1/2/2/1/2/2/0	-	12/16
Megan N Breit, 2014 [23]	2/0*/2/2/1/2/2/0	-	11/14
Cheryl A. London, 2014 [15]	2/0*/2/2/1/2/2/0	-	11/14
Kuroki S, 2016 [16]	2/0*/2/2/1/2/2/0	-	11/14
Savannah J. Tobin, 2021 [51]	2/0*/2/2/1/2/2/0	-	11/14
Ayami Sato, 2021 [54]	2/0*/2/2/1/2/2/0	-	11/14
Jin ok Ahn, 2013 [60]	2/0*/2/2/1/2/2/0	2/2/1/1	17/22
Eduardo Laborda, 2014 [58]	2/0*/2/2/1/2/2/0	-	11/14
Adriana Tomoko Nishiya, 2020 [67]	2/2/2/2/1/2/2/0	-	13/16
Ryutaro Yoshikawa et al, 2019 [62]	2/2/2/2/1/2/2/0	-	13/16
Yusuke Wada et al, 2019 [64]	2/0*/2/2/1/2/2/0	-	11/14
Ryutaro Yoshikawa, 2023 [63]	2/2/2/2/1/2/2/0	-	13/16
R. Yoshitake, 2017 [20]	2/0*/2/2/1/2/2/0	-	11/14
Takuro Ishikawa, 2021 [21]	2/0*/2/2/1/2/2/0	-	11/14

*Study not applicable to that scoring item.