Figure S1. Quality assessment of the included studies and the main potential sources of bias.

Study	clearly stated research question or objective	clearly defined study population	sample size justification	groups recruitment from the same population	valid inclusion and exclusion criteria	cases differentiated from controls	randomization	clearly defined measures	blinded participant status	adjusted statistical methods	summary quality score
Piacenza Florezi et al. Brazil 2024 [1]	✓	✓	△	✓	✓	✓	✗	✓	✗	✓	✓
Vyas et al. USA 2024 [2]	✓	✓	△	✓	✓	✓	✗	✓	✗	✓	✓
Alt-Holland et al. USA 2023 [3]	✓	✓	△	✓	✓	✓	△	✓	✗	✓	✓
Alt-Holland et al. USA 2023 [3]	✓	✓	△	✓	✓	✓	△	✓	✗	✓	✓
Bosman et al. France, Brasil 2023 [4]	✓	✓	△	✓	✓	✓	✗	✓	✗	✓	✓
Setti et al. Italy 2023 [5]	✓	✓	△	✓	✓	✓	✗	✓	✗	✓	✓
Li et al. 2022 China [6]	✓	✓	△	✓	✓	✓	△	✓	✗	✓	✓
Herrala et al. Finland 2021 [7]	✓	✓	△	✓	✓	✓	✗	✓	✗	✓	✓
Tvarijonaviciute et al. 2019 Spain [8]	✓	✓	△	✓	✓	✓	✗	✓	✗	✓	✓
Kageyama et al. Japan 2015 [9]	✓	✓	△	✓	✓	✓	✗	✓	✗	✓	✓
Tian et al. China 2024 [10]	✓	✓	△	✓	✓	✓	△	✓	✗	✓	✓
Giorgi et al. 2022 Italy [11]	✓	✓	△	✓	✓	✓	✗	✓	✗	✓	✓
Finamore et al. 2021 Italy	✓	✓	△	✓	✓	✓	✗	✓	✗	✓	✓

Study	clearly stated research question or objective	clearly defined study population	sample size justification	groups recruitment from the same population	valid inclusion and exclusion criteria	cases differentiated from controls	randomization	clearly defined measures	blinded participant status	adjusted statistical methods	summary quality score
[12]											
Aqrawi et al. Norway 2020 [13]	✓	✓	△	✓	✓	✓	✗	✓	✗	✓	✓
Chen et al. Norway2019 [14]	✓	✓	△	✓	✓	✓	✗	✓	✗	✓	✓
Cecchettini et al. 2019 Italy [15]	✓	✓	△	✓	✓	✓	✗	✓	✗	✓	✓
Aqrawi et al. Norway 2019 [16]	✓	✓	△	✓	✓	✓	✗	✓	✗	✓	✓
Garza-García et al. Mexico 2017 [17]	✓	✓	△	✓	✓	✓	✗	✓	✗	✓	✓
Aqrawi et al. Norway 2017 [18]	✓	✓	△	✓	✓	✓	✗	✓	✗	✓	✓
Delaleu et al. Switzerland 2016 [19]	✓	✓	△	✓	✓	✓	✗	✓	✗	✓	✓
Deutsch et al. Israel, Finland, USA 2014 [20]	✓	✓	△	✓	✓	✓	✗	✓	✗	✓	✓
Cross et al. Norway 2023 [21]	✓	✓	△	✓	✓	✓	✗	✓	✗	✓	✓
Karagianni et al. Greece 2020 [22]	✓	✓	△	✓	✓	✓	✗	✓	✗	✓	✓
Sembler-Møller et al. Denmark 2020 [23]	✓	✓	△	✓	✓	✓	✗	✓	✗	✓	✓
Chiang et al. USA, Denmark, Korea 2024 [24]	✓	✓	△	✓	✓	✓	✗	✓	✗	✓	✓

Study	clearly stated research question or objective	clearly defined study population	sample size justification	groups recruitment from the same population	valid inclusion and exclusion criteria	cases differentiated from controls	randomization	clearly defined measures	blinded participant status	adjusted statistical methods	summary quality score
Li et al. 2022 China [25]	✓	✓	△	✓	✓	✓	✗	✓	✗	✓	✓
Moreno-Quispe et al. Spain, Peru 2020 [26]	✓	✓	△	✓	✓	✓	✗	✓	✗	✓	✓
Jin et al. China 2019 [27]	✓	✓	△	✓	✓	✓	✗	✓	✗	✓	✓
Lee et al. Korea 2019 [28]	✓	✓	△	✓	✓	✓	△	✓	✗	✓	✓
Sandhya et al. India 2017 [29]	✓	✓	△	✓	✓	✓	✗	✓	✗	✓	✓
Garreto et al. Brazil 2021 [30]	✓	✓	△	✓	✓	✓	✗	✓	✗	✓	✓
Wei et al. China 2020 [31]	✓	✓	△	✓	✓	✓	✗	✓	✗	✓	✓

The table summarizes the methodological quality assessment of all included studies across eleven domains: research question clarity, definition of the study population, sample size justification, recruitment comparability, inclusion/exclusion criteria, differentiation of cases and controls, randomization, measurement validity, blinding, and adequacy of statistical methods.

Each domain was rated according to the ROBVIS tool: Quality assessment, including the main potential risk of bias (https://www.riskofbias.info/welcome/robvis-visualization-tool.

Legend: ✓ for low risk of bias, △ for some concerns, ✗ for high risk of bias.

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