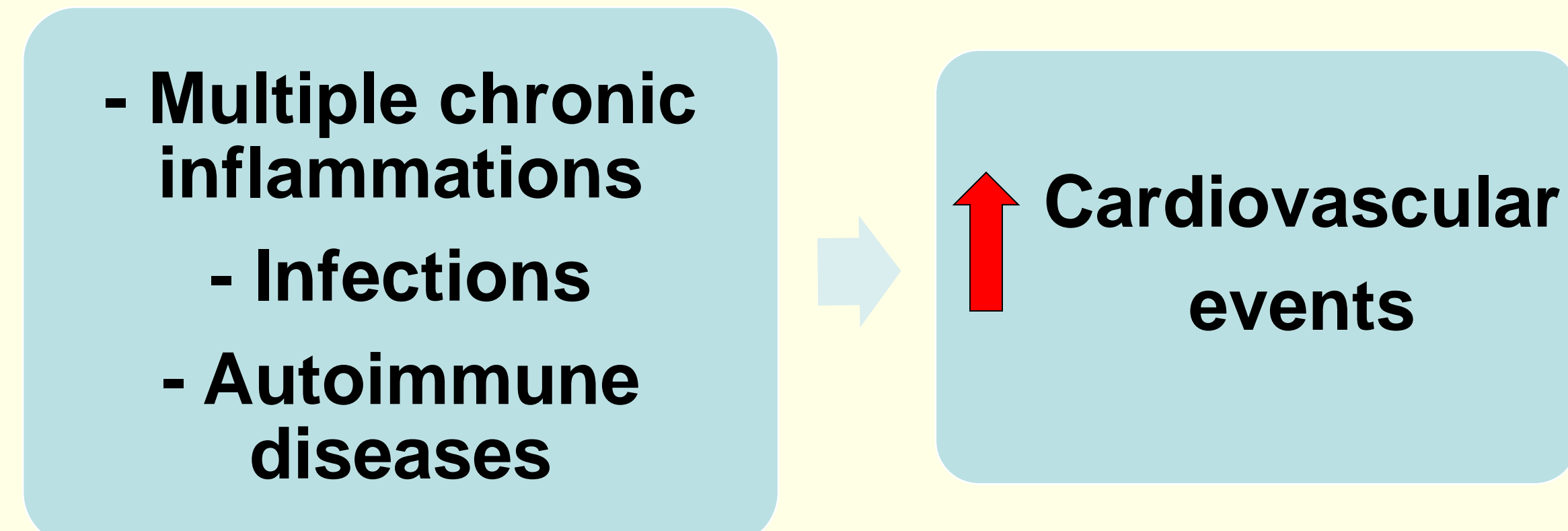


Association Between Periodontal Disease and Heart Failure: A Meta-Analysis

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BACKGROUND



- Periodontal disease: one of the most prevalent systemic inflammatory diseases worldwide
- The association between **periodontal disease** and **heart failure** is not well-described.
- We, therefore, conducted a meta-analysis to investigate the association between periodontal disease and heart failure.

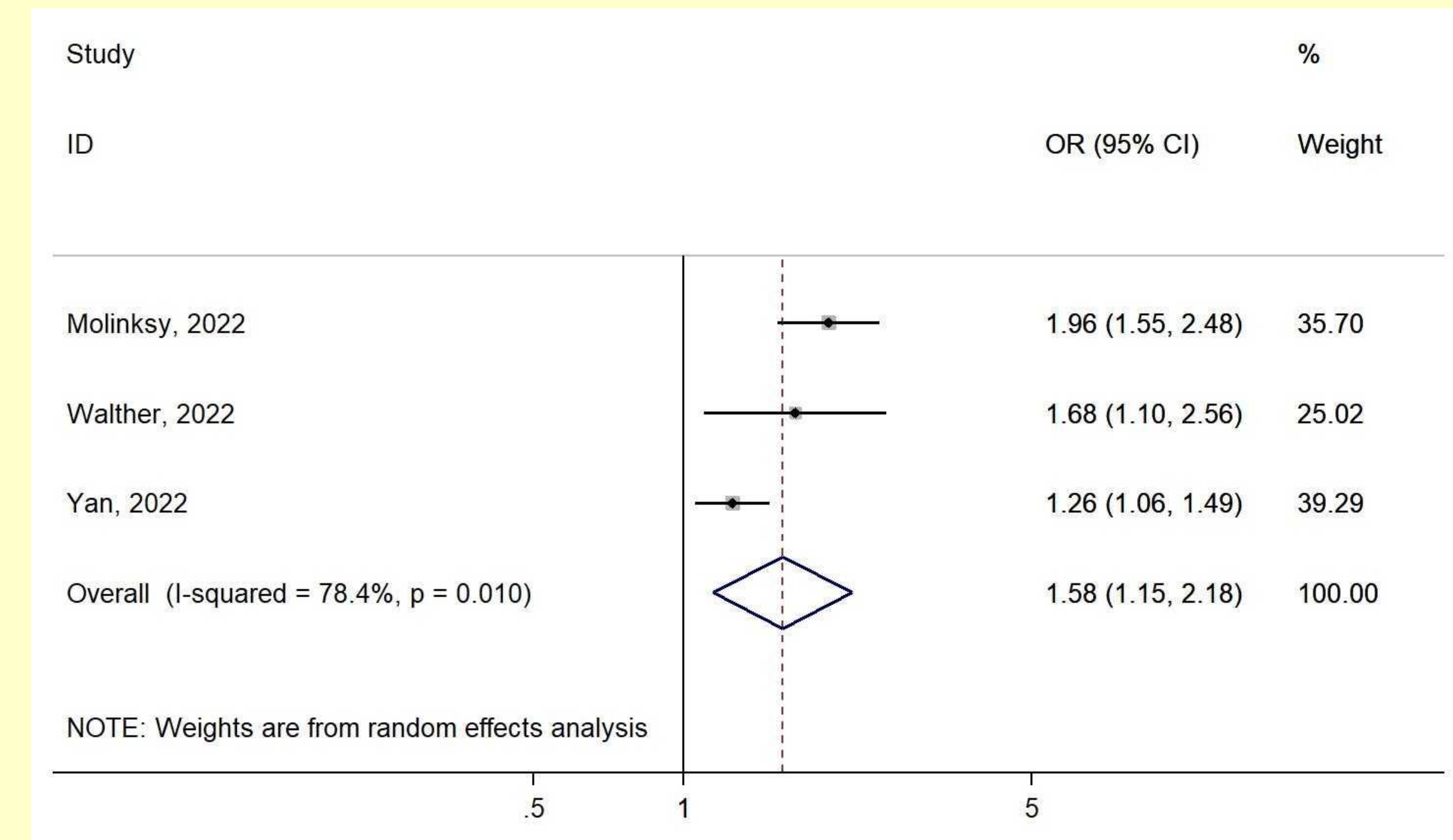


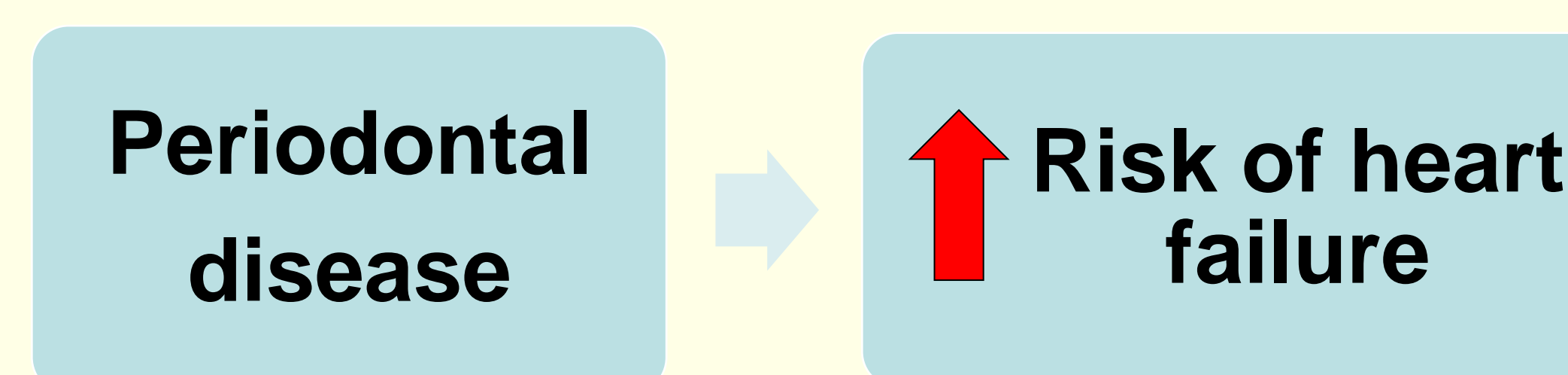
Figure 1 Forest plot demonstrating the association between periodontal disease and heart failure.

METHODS

- **Databases:** MEDLINE and EMBASE from the inception to December 15, 2022
- We included cohort studies that evaluate the association between periodontal disease and heart failure risk.
- Data from each study were combined using the random-effects model to calculate pooled odds ratio (OR) with 95% confidence interval (CI).

RESULTS

- Three cohort studies
 - 13,039 patients with periodontal disease and
 - 4,768 patients without periodontal disease
 - Included in our meta-analysis



- Pooled OR = 1.58, 95% CI 1.15-2.18, p-value = 0.010, I²=78.4%

CONCLUSIONS

- Our meta-analysis indicated that periodontal disease is associated with an increased risk of heart failure.
- Further studies are required to confirm the result and investigate how this should be addressed in clinical practice.

