

## PRISMA Flow Diagram

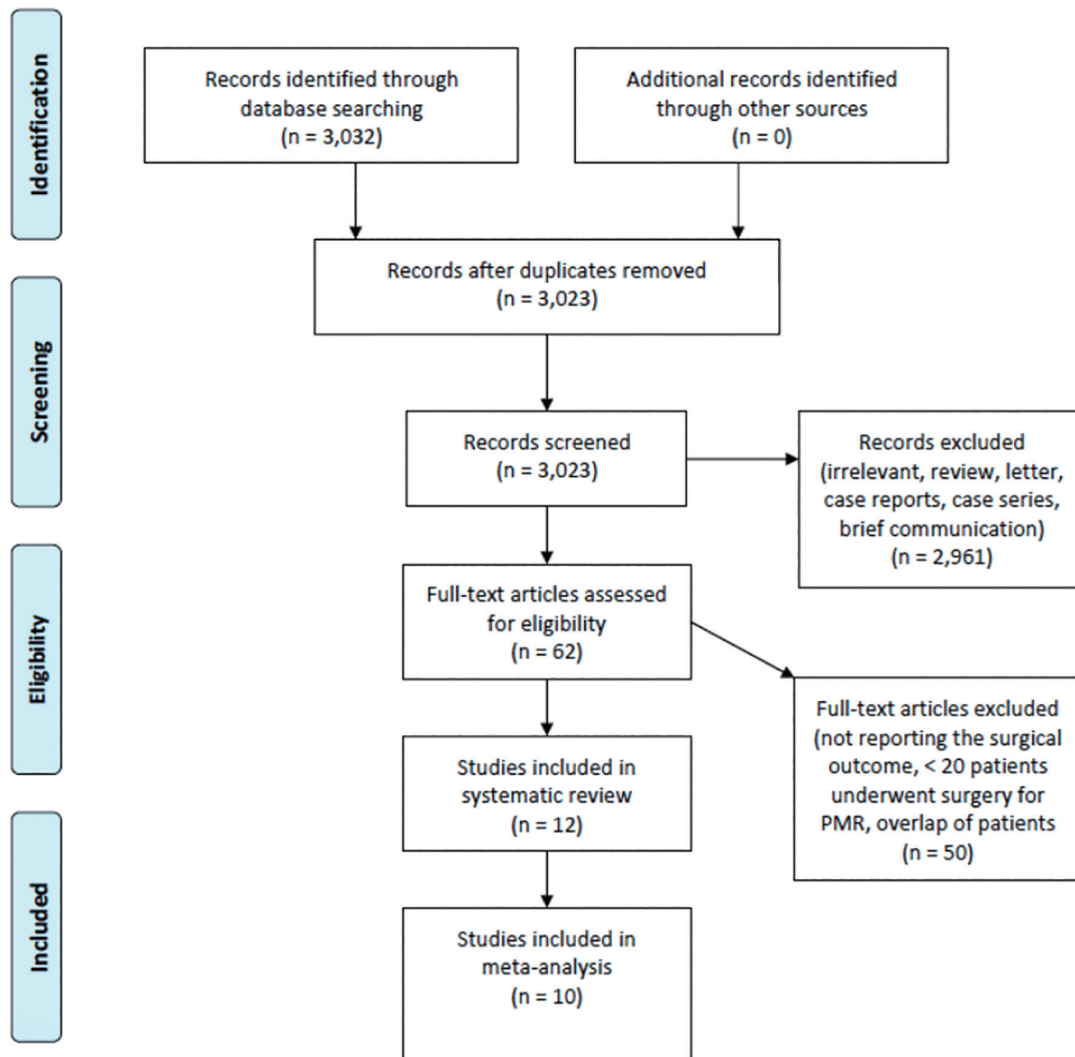
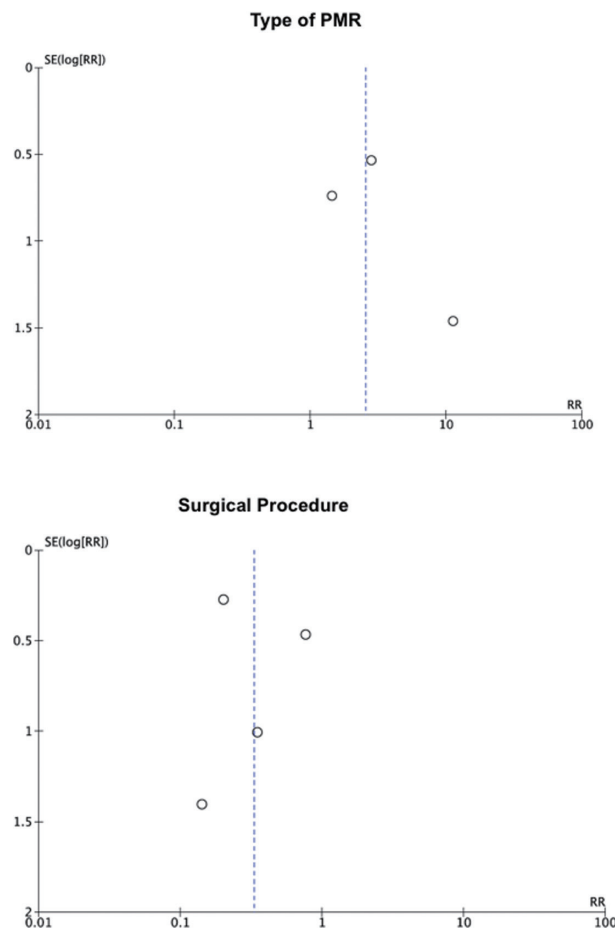


Figure S1 The PRISMA flow diagram describing the study selection process.

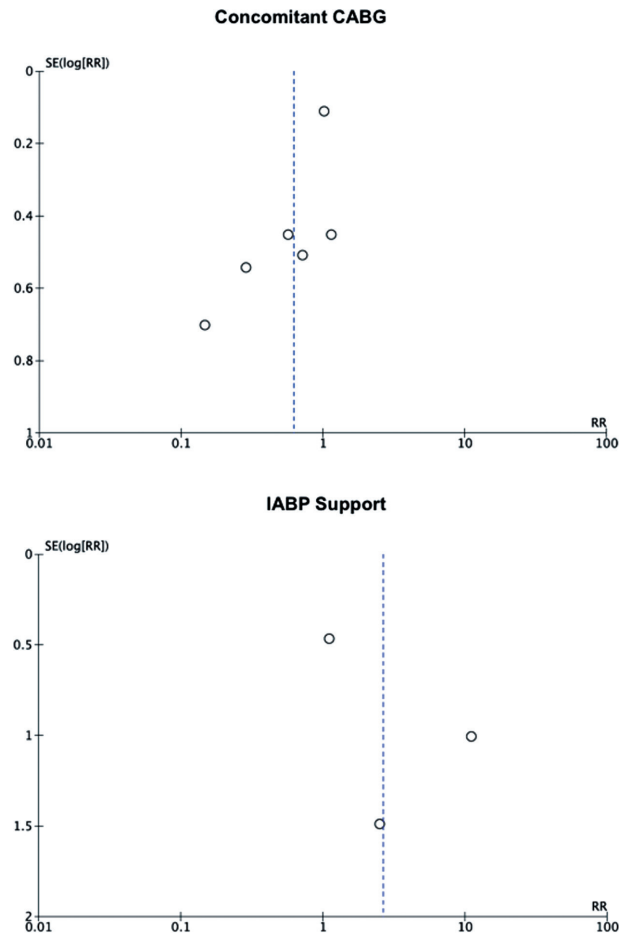
**Table S1** Risk of bias summary

| Study           | Bias due to confounding | Bias in selection of participants | Bias in measurements of interventions | Bias due to missing data | Bias in measurements of outcomes | Bias in selection of reported results | Overall bias |
|-----------------|-------------------------|-----------------------------------|---------------------------------------|--------------------------|----------------------------------|---------------------------------------|--------------|
| Bouma, 2014     | Critical                | Low                               | Moderate                              | Low                      | Moderate                         | Serious                               | Serious      |
| Chevalier, 2004 | Critical                | Low                               | Serious                               | Serious                  | Serious                          | Serious                               | Serious      |
| Figuera, 1997   | Critical                | Low                               | Moderate                              | Serious                  | Moderate                         | Moderate                              | Serious      |
| Fujita, 2020    | Critical                | Low                               | Moderate                              | Low                      | Moderate                         | Moderate                              | Moderate     |
| Kilic, 2020     | Critical                | Moderate                          | Moderate                              | Low                      | Moderate                         | Moderate                              | Moderate     |
| Kishon, 1992    | Critical                | Low                               | Moderate                              | Low                      | Moderate                         | Serious                               | Critical     |
| Russo, 2008     | Critical                | Low                               | Moderate                              | Moderate                 | Moderate                         | Moderate                              | Moderate     |
| Schroeter, 2013 | Critical                | Low                               | Moderate                              | Moderate                 | Serious                          | Moderate                              | Serious      |
| Sultan, 2018    | Critical                | Low                               | Moderate                              | Low                      | Moderate                         | Moderate                              | Moderate     |
| Ternus, 2017    | Critical                | Low                               | Moderate                              | Serious                  | Moderate                         | Serious                               | Serious      |

Review authors' judgements about each risk of bias item for each included study.



**Figure S2** Publication bias (I). Funnel plots of publication bias for type of PMR and surgical procedure. PMR, papillary muscle rupture; RR, risk ratio; SE, standard error.



**Figure S3** Publication bias (II). Funnel plots of publication bias for concomitant CABG and IABP support. CABG, coronary artery bypass grafting; IABP, intra-aortic balloon pump; RR, risk ratio; SE, standard error.