**SUPPLEMENTARY DATA**

**Efficacy and safety of bioresorbable scaffolds in** **patients with coronary bifurcation lesions: a systematic review and meta-analysis**

**List of Supporting Information Content**

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**Search strategy (Embase)**

#1 'coronary bifurcation lesion'/exp

#2 'coronary bifurcation lesion\*':ab,ti

#3 'coronary artery bifurcation lesion\*':ab,ti

#4 'bifurcation lesion\*':ab,ti

#5 'bifurcation coronary lesion\*':ab,tiR

#6 'coronary bifurcation':ab,ti

#7 'coronary artery bifurcations':ab,ti

#8 #1 OR #2 OR #3 OR #4 OR #5 OR #6 OR #7

#9 'bioresorbable scaffold'/exp

#10 'bioresorbable vascular stent'/exp

#11 'bioresorbable vascular stent\*':ab,ti

#12 'bioresorbable vascular scaffold\*':ab,ti

#13 'bioresorbable scaffold\*':ab,ti

#14 'everolimus-eluting bioresorbable scaffold\*':ab,ti

#15 'coronary bioresorbable scaffold\*':ab,ti

#16 'bioabsorbable stent\*':ab,ti

#17 'bioresorbable coronary scaffold\*':ab,ti

#18 'absorb bioresorwbable vascular scaffold\*':ab,ti

#19 'novel sirolimus-eluting bioresorbable scaffold\*':ab,ti

#20 'the neovas sirolimus-eluting bioresorbable scaffold\*':ab,ti

#21 #9 OR #10 OR #11 OR #12 OR #13 OR #14 OR #15 OR #16 OR #17 OR #18 OR #19 OR #20

#22 #8 AND #21

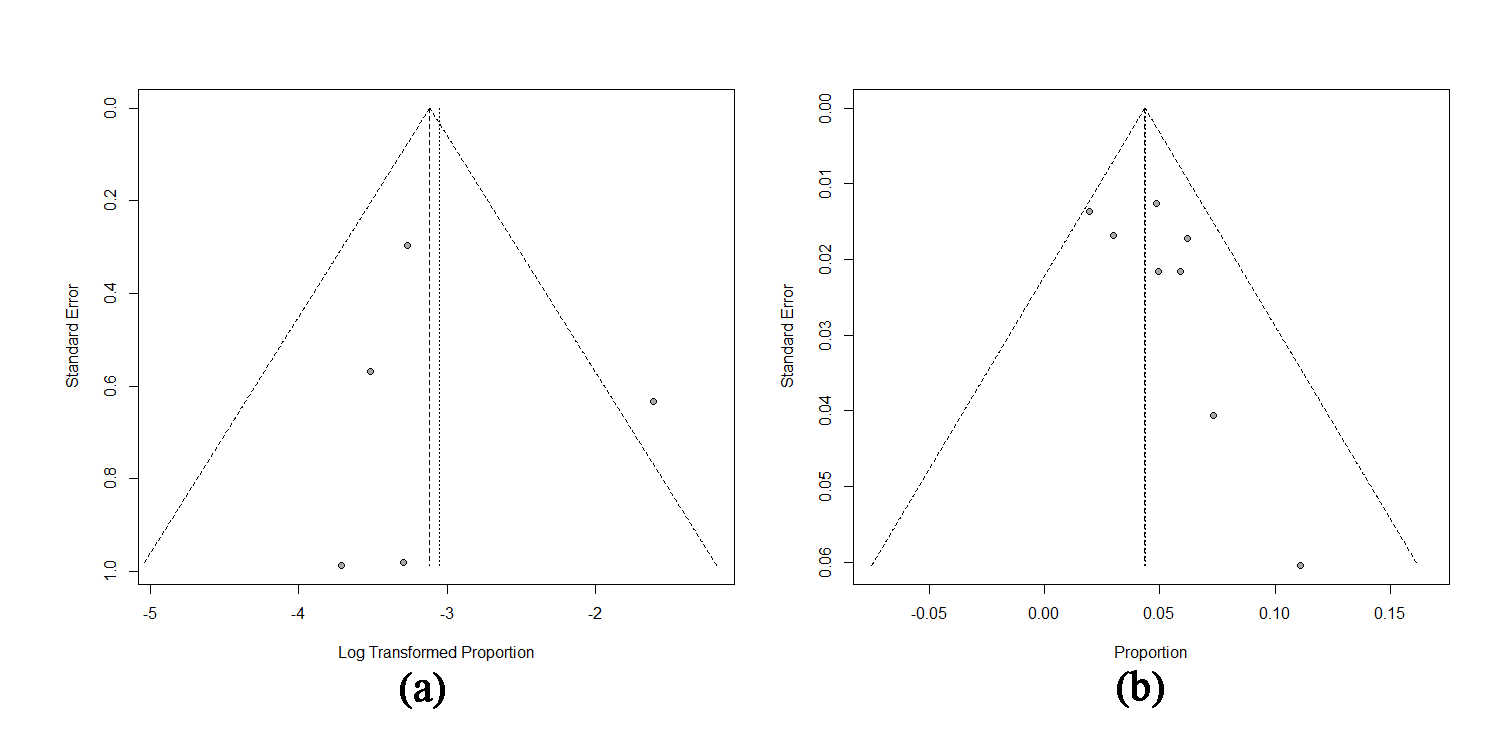
#22 AND 'article'/it

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| --- | --- |
| **S1 Table.** Newcastle-Ottawa Quality Assessment Form for Cohort Study | |
| **Study** | Kawamoto et al. 2015 |
| **Selection** |  |
| 1) Representativeness of the exposed cohort | ★ |
| 2) Selection of the non-exposed cohort | ★ |
| 3) Ascertainment of exposure | ★ |
| 4) Demonstration that outcome of interest was not present at start of study | ☆ |
| **Comparability** |  |
| Comparability of cohorts on the basis of the design or analysis controlled for confounders | ★★ |
| **Outcome** |  |
| 1) Assessment of outcome | ★ |
| 2) Was follow-up long enough for outcomes to occur | ★ |
| 3) Adequacy of follow-up of cohorts | ★ |
| *Note:* A study can be given a maximum of one star for each numbered item within the Selection and Outcome categories. A maximum of two stars can be given for Comparability. | |
| Thresholds for converting the Newcastle-Ottawa scales to AHRQ standards (good, fair, and poor): | |
| **Good quality**: 3 or 4 stars in selection domain AND 1 or 2 stars in comparability domain AND 2 or 3 stars in outcome/exposure domain | |
| **Fair quality**: 2 stars in selection domain AND 1 or 2 stars in comparability domain AND 2 or 3 stars in outcome/exposure domain | |
| **Poor quality**: 0 or 1 star in selection domain OR 0 stars in comparability domain OR 0 or 1 stars in outcome/exposure domain | |

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| **S2 Table.** Quality assessment of case series studies | | | | | | | | | | | |
| Study | 1a | 2b | 3c | 4d | 5e | 6f | 7g | 8h | 9i | 10j | Overall appraisal |
| De Paolis et al. 2016 | Y | Y | Y | U | Y | Y | Y | Y | NA | Y | Include |
| Elabbassi et.al. 2019 | Y | Y | Y | Y | N | Y | Y | Y | NA | Y | Include |
| Grundeken et al. 2015 | N | Y | Y | Y | Y | Y | Y | Y | NA | Y | Include |
| Holck et al. 2019 | Y | Y | Y | U | N | Y | Y | Y | NA | Y | Include |
| Naganuma et al. 2017 | Y | U | Y | Y | Y | Y | Y | Y | NA | Y | Include |
| Ojeda et al. 2016 | Y | U | Y | Y | N | Y | Y | Y | NA | Y | Include |
| Paradies et al. 2018 | Y | Y | Y | Y | N | Y | Y | Y | NA | Y | Include |
| Suárez et al. 2016 | Y | Y | Y | Y | N | Y | Y | Y | NA | Y | Include |
| Tanaka① et al. 2016 | Y | U | Y | Y | N | Y | Y | Y | NA | Y | Include |
| Tanaka② et al. 2016 | N | Y | Y | Y | U | Y | Y | Y | NA | Y | Include |
| Wiebe et al. 2016 | Y | Y | Y | Y | Y | Y | Y | Y | NA | Y | Include |
| a Were there clear criteria for inclusion in the case series? | | | | | | | | | | | |
| b Was the condition measured in a standard, reliable way for all participants included in the case series? | | | | | | | | | | | |
| c Were valid methods used for identification of the condition for all participants included in the case series? | | | | | | | | | | | |
| d Did the case series have consecutive inclusion of participants? | | | | | | | | | | | |
| e Did the case series have complete inclusion of participants? | | | | | | | | | | | |
| f Was there clear reporting of the demographics of the participants in the study? | | | | | | | | | | | |
| g Was there clear reporting of clinical information of the participants? | | | | | | | | | | | |
| h Were the outcomes or follow up results of cases clearly reported? | | | | | | | | | | | |
| i Was there clear reporting of the presenting site(s)/clinic(s) demographic information? | | | | | | | | | | | |
| j Was statistical analysis appropriate? | | | | | | | | | | | |
| Y=Yes, N=No, U=Unclear, NA=Not applicable | | | | | | | | | | | |

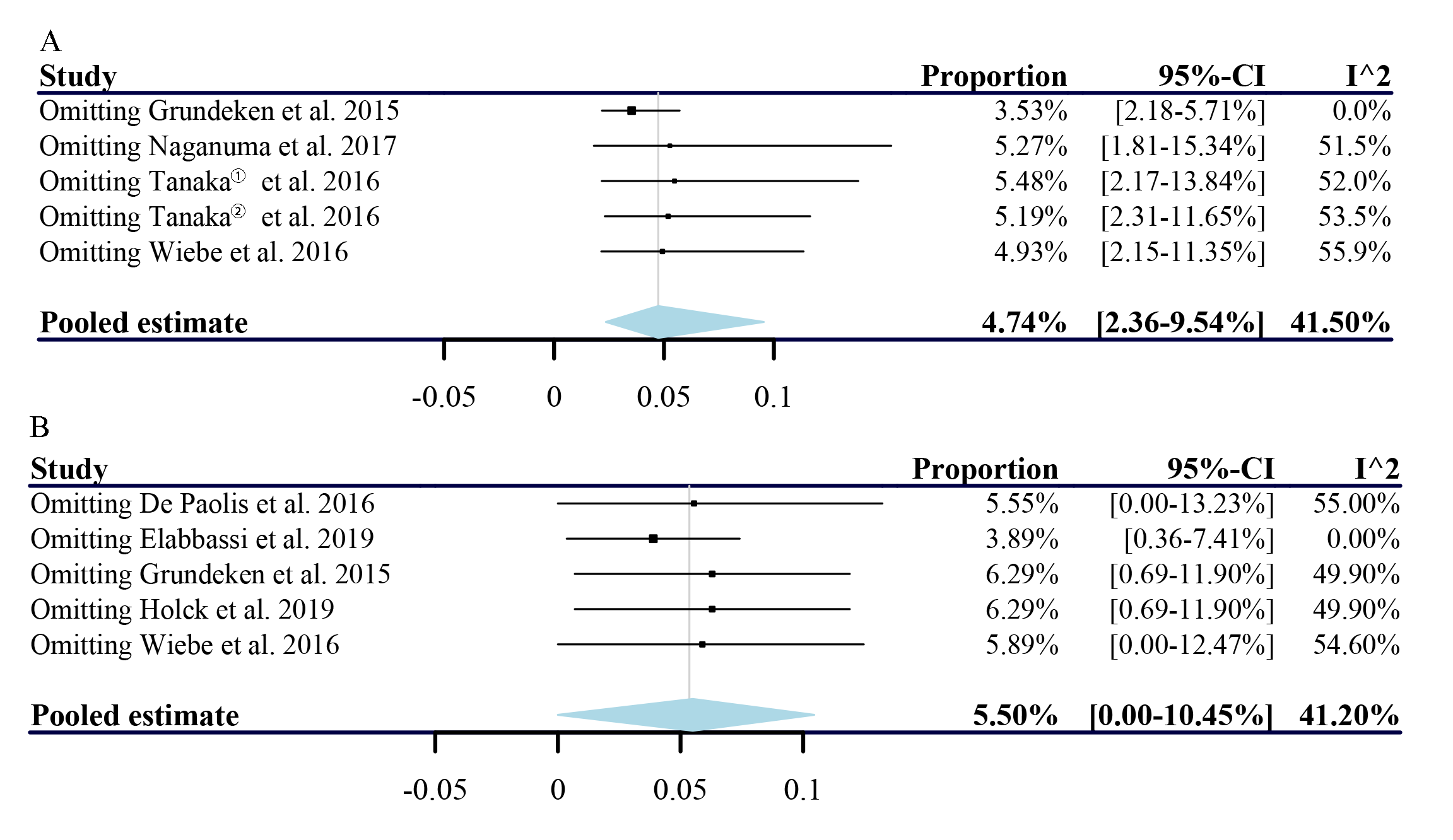
**S3 Table.** Summary of GRADE evidence quality evaluation

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| **Bioresorbable scaffolds for coronary bifurcation lesions** | | | | | | |
| **Patient or population:** patients with coronary bifurcation lesions  **Settings:**  **Intervention:** Bioresorbable scaffolds | | | | | | |
| **Outcomes** | **Illustrative comparative risks\* (95% CI)** | | **Relative effect (95% CI)** | **No of Participants (studies)** | **Quality of the evidence (GRADE)** | **Comments** |
| Assumed risk | Corresponding risk |
|  | **Control** | **Bioresorbable Stents** |  |  |  |  |
| **target lesion revascularization** interventional angiography Follow-up: median 12 months | **Medium risk population1** | | **proportion 4.35**  (3.07 to 5.62) | 974 (8 studies) | ⊕⊝⊝⊝ **very low**2,3,4,5 |  |
| **49 per 1000**1 | **213 per 1000** (150 to 275) |
| **target lesion revascularization** interventional angiography  Follow-up: median 6 months | **Medium risk population1** | | **proportion 4.43**  (2.83 to 6.94) | 468 (5 studies) | ⊕⊝⊝⊝ **very low**2,3,4,5,6 |  |
| **37 per 1000**2 | **164 per 1000** (105 to 257) |
| **major adverse cardiovascular events** interventional angiography and clinical observation Follow-up: median 12 months | **Medium risk population1** | | **proportion 6.91**  (4.97 to 8.86) | 645 (6 studies) | ⊕⊝⊝⊝ **very low**2,5,7 |  |
| **77 per 1000**1 | **534 per 1000** (384 to 685) |
| **target vessel revascularization** interventional angiography  Follow-up: median 12 months | **Medium risk population** | | **proportion 4.8**  (2.43 to 7.17) | 491 (6 studies) | ⊕⊝⊝⊝ **very low**2,5,7 |  |
| **71 per 1000** | **342 per 1000** (173 to 511) |
| **myocardial infarction** creatine kinase myocardial band (CK-MB) levels Follow-up: median 12 months | **Medium risk population1** | | **proportion 1.93**  (0.6 to 3.26) | 1114 (9 studies) | ⊕⊝⊝⊝ **very low**2,5,7 |  |
| **28 per 1000**1 | **53 per 1000** (17 to 90) |
| **probable or definate scaffold thrombosis** interventional angiography  Follow-up: median 12 months | **Medium risk population** | | **proportion 1.61**  (0.81 to 2.42) | 974 (8 studies) | ⊕⊝⊝⊝ **very low**2,5,7 |  |
| **20 per 1000**1 | **32 per 1000** (16 to 48) |
| **cardiac death** Clinical observation Follow-up: median 12 months | **Medium risk population** | | **proportion 0.45**  (0 to 0.91) | 974 (8 studies) | ⊕⊝⊝⊝ **very low**2,5,7 |  |
| **8 per 1000**1 | **3 per 1000** (0 to 7) |
| **major adverse cardiovascular events** interventional angiography and clinical observation Follow-up: median 6 months | **Medium risk population1** | | **porpulation 5.36**  (2.23 to 8.49) | 212 (5 studies) | ⊕⊝⊝⊝ **very low**2,4,5,8,9 |  |
| **37 per 1000**1 | **198 per 1000** (83 to 314) |
| \*The basis for the **assumed risk** (e.g. the median control group risk across studies) is provided in footnotes. The **corresponding risk** (and its 95% confidence interval) is based on the assumed risk in the comparison group and the **relative effect** of the intervention (and its 95% CI).  **CI:** Confidence interval; | | | | | | |
| GRADE Working Group grades of evidence **High quality:** Further research is very unlikely to change our confidence in the estimate of effect.  **Moderate quality:** Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate. **Low quality:** Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate. **Very low quality:** We are very uncertain about the estimate. | | | | | | |
| 1 No control group 2 Part of the studies were case series without control group 3 Some are small sample studies. 4 No direct comparison with previous stents, such as druge-eluting stents or metal stent 5 The number of events less than 300 6 ABSORB bioresorable scaffolds were used for all studies, one of the study was combined with Tryton stent. 7 Patients, interventions and outcomes are basically the same 8 Different stents were used in studies, four of them were ABSORB stent and one of them is Desolve 150 stent 9 The number of total population in analysis is less than 400. | | | | | | |

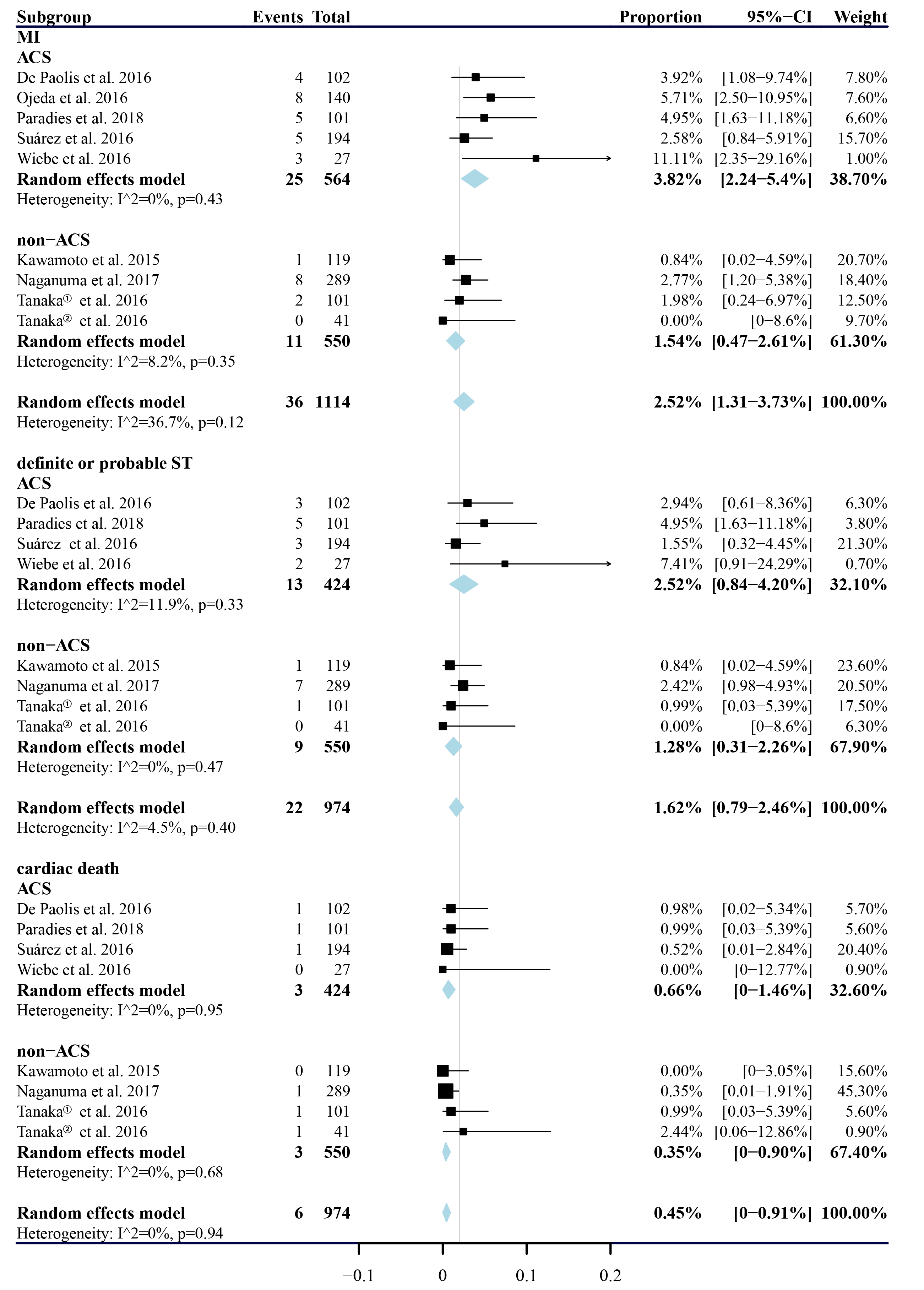


**Figure S1.** The funnel plots of TLR outcomes.

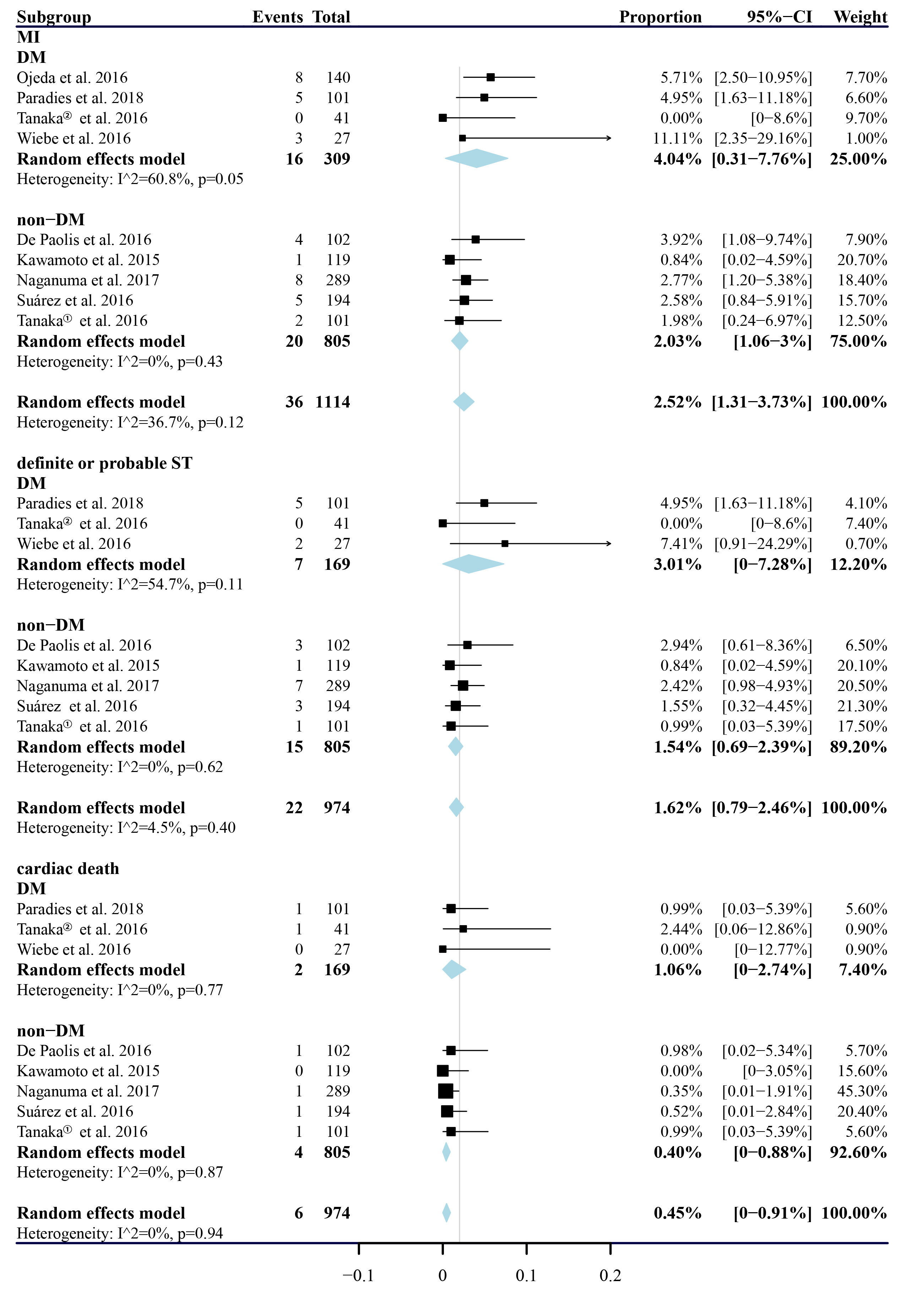
(a) TLR at 6-month followed up; (b) TLR at 1-year followed up.



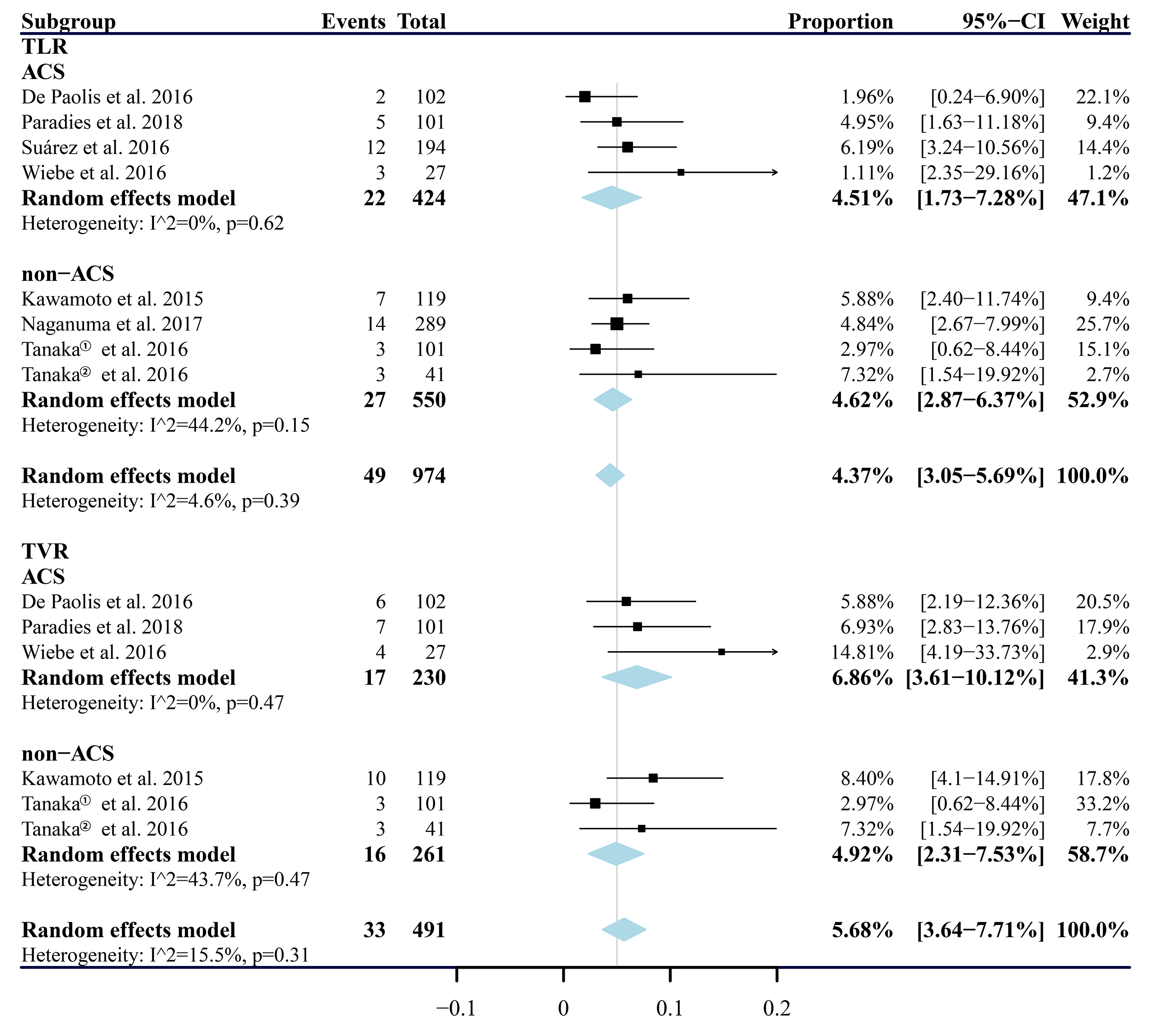
**Figure S2.** Sensitivity analysis of TLR (A) and MACE (B) at 6-month follow-up.



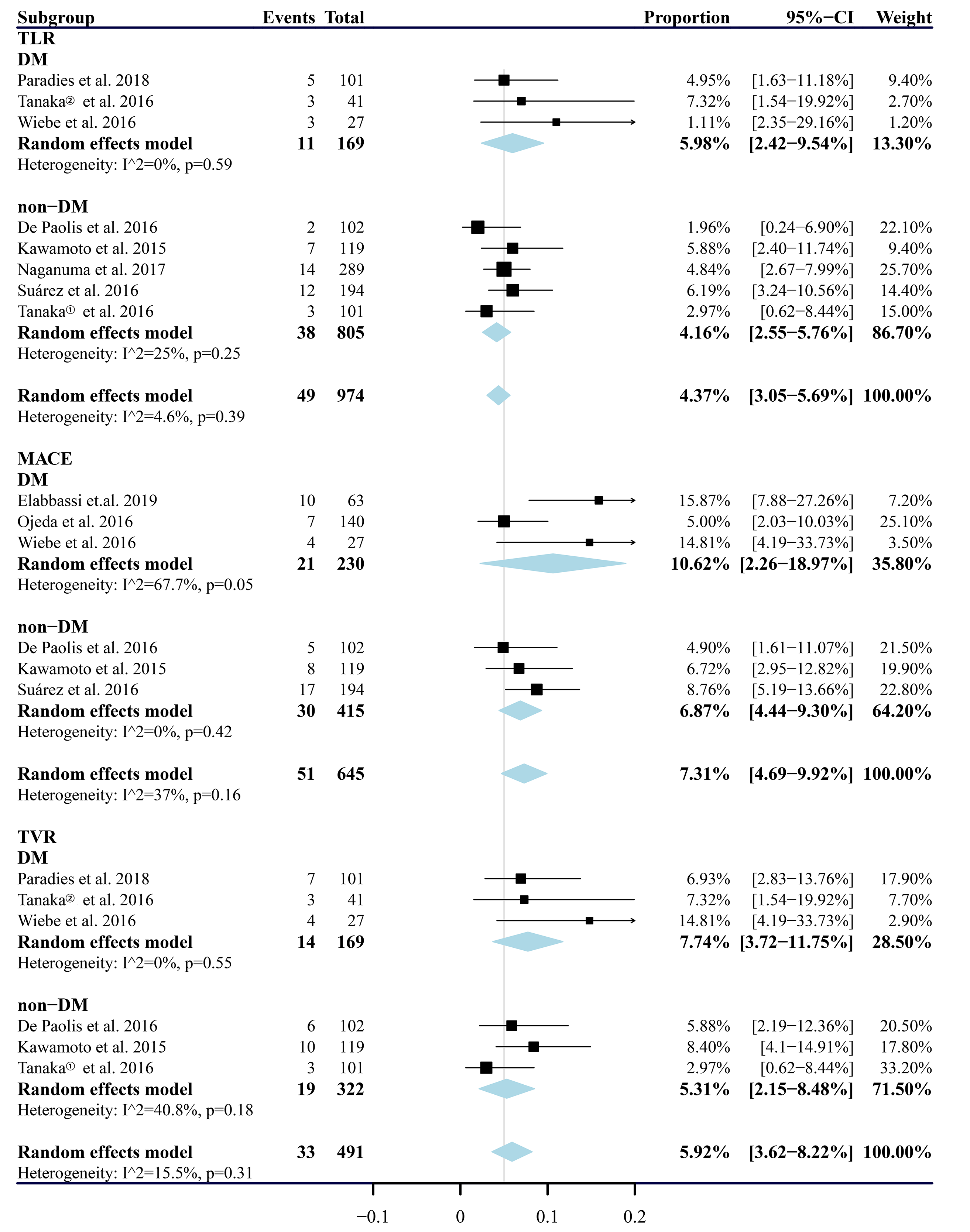
**Figure S3.** ACS subgroup analysis for MI, definite or probable ST and cardiac death at 1-year follow-up.



**Figure S4.** DM subgroup analysis for MI, definite or probable ST and cardiac death at 1-year follow-up.



**Figure S5.** ACS subgroup analysis for TLR and TVR at 1-year follow-up.



**Figure S6.** DM subgroup analysis for TLR, MACE and TVR at 1-year follow-up.