Review Article

Percutaneous Coronary Intervention With Ridaforolimus-Eluting Stents in Patients With Coronary Artery Disease: A Systematic Review and Single-Arm Meta-Analysis

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Abstract

Background: **The ridaforolimus-eluting stent (RES) is a new-generation drug-eluting stent (DES) featuring thin struts and a durable polymer, designed to provide a high therapeutic-to-toxicity margin. However, its long-term clinical performance remains uncertain.**

Methods: **We conducted a systematic review and meta-analysis following Cochrane and PRISMA guidelines. PubMed, Embase, and Cochrane databases were searched for randomized controlled trials (RCTs) and prospective non-RCT studies evaluating RES in patients with coronary artery disease (CAD). Outcomes were expressed as event rates using a generalized linear mixed model (GLMM). Statistical significance was defined as $P < 0.05$.**

Results: **Six studies with eight reports and 1,709 patients were included. The mean age was 63 years; 76% were men; 35% had a previous myocardial infarction (MI); and 41% presented with acute coronary syndrome. Mean lesion length was 27.84 mm, and ACC/AHA lesion class B2/C accounted for 61% of lesions. Target lesion failure (TLF) was 3.89% (95% confidence intervals [CI]: 2.58–5.82) at 1 year and 11.73% (95% CI: 9.94–13.73) at 5 years. Major adverse cardiac events (MACE) occurred in 4.82% (95% CI: 3.19–7.21) at 1 year and 16.22% (95% CI: 14.14–18.47) at 5 years. Cardiovascular mortality remained low, at 0.59% (95% CI: 0.28–1.02) at one year and 3.36% (95% CI: 2.40–4.57) at 5 years. MI occurred in 2.68% (95% CI: 1.50–4.76) at 1 year and 9.84% (95% CI: 8.18–11.70) at five years.**

Conclusion: **In this single-arm meta-analysis, RES was associated with high procedural success and low observed rates of adverse clinical events across available studies.**

Keywords: **Drug-Eluting Stents; Percutaneous Coronary Intervention; Coronary Artery Disease.**

Introduction

Drug-eluting stents (DES) remain a cornerstone in the treatment of coronary artery disease (CAD). The latest generation of DES incorporates advances in polymer technology and strut geometry, resulting in superior long-term clinical outcomes.[1-6] Compared with bare-metal stents (BMS), these contemporary DES demonstrate lower rates of cardiac death, myocardial infarction (MI), stent thrombosis, and target-vessel revascularization.[7] Furthermore, the well-established benefits of DES in preventing restenosis and repeat revascularization have been consistently observed across clinical trials involving diverse patient populations with varying clinical and angiographic profiles.[2,4,8,9]

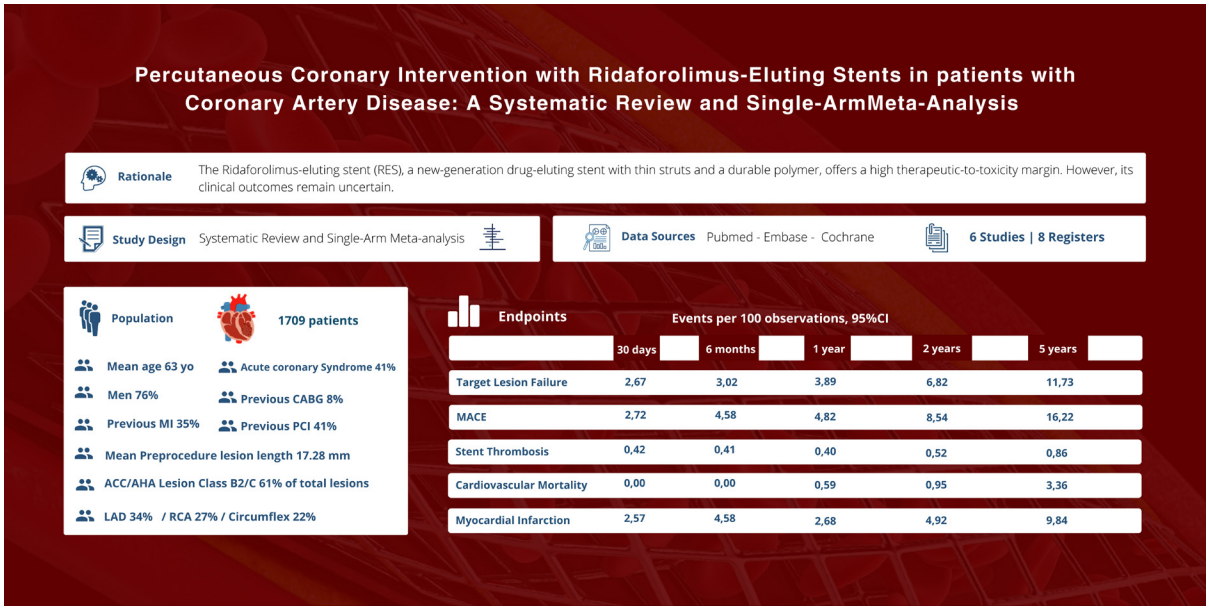
Ridaforolimus, a derivative of rapamycin, offers a higher therapeutic-to-toxicity margin compared with most other sirolimus analogs. The polymer's elastomeric properties enhance resistance to disruption of polymer integrity during stent expansion, a challenge reported with several contemporary DES. Despite these advances,

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Central Illustration: Percutaneous Coronary Intervention With Ridaforolimus-Eluting Stents in Patients With Coronary Artery Disease: A Systematic Review and Single-Arm Meta-Analysis

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the safety and effectiveness of the ridaforolimus-eluting stent (RES) have not yet been well established in the literature.[8,10,11]

Given the absence of prior pooled evidence on ridaforolimus-eluting stents, we conducted a systematic review and meta-analysis to summarize the available clinical and angiographic outcomes following RES implantation in patients with CAD. Because the current evidence is largely derived from single-arm studies, our objective was to provide a descriptive synthesis of event rates rather than a comparative assessment against other contemporary DES platforms.

Methods

This systematic review and meta-analysis followed the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines.[12] The study protocol was registered in the International Prospective Register of Systematic Reviews (PROSPERO) under registration number CRD42024502113.[13]

Search strategy and data extraction

PubMed, Embase, and the Cochrane Library were systematically searched from inception to January 13, 2024. The search terms included "Ridaforolimus," "Percutaneous Coronary Intervention," and "CAD." The complete search strategy is provided in Supplementary Material, Item 1.

To identify additional studies, the reference lists of all included articles were screened. Two authors (E.B. and E.P.) independently extracted baseline characteristics and outcome data according to predefined criteria. Any disagreements were resolved by consensus among the three authors (E.B., E.P., and M.H.R.).

Eligibility criteria

The eligibility criteria for this systematic review were established to address the primary research question: "What clinical and angiographic outcomes have been reported following implantation of the ridaforolimus-eluting stent (RES) in patients with CAD?" Given the inclusion of single-arm studies and non-comparative outcome reporting, the aim was to descriptively summarize observed event rates rather than to determine comparative efficacy or safety versus other stent platforms. The review included patients with CAD and focused specifically on the RES. Eligible study designs comprised randomized controlled trials (RCTs) and cohort studies, with no restrictions regarding study type.

Exclusion criteria were applied to remove studies involving ridaforolimus in combination with other therapies, those evaluating different DES types, or studies with overlapping populations. Case reports, reviews, conference abstracts, and other non-original research were also excluded from the meta-analysis.

For study selection, titles and abstracts were screened without restrictions on publication date. Articles were imported into the Rayyan platform[14] for review. During this stage, all articles not directly related to the research question were excluded, and duplicate records were removed. This assessment was performed independently by two reviewers (R.M. and V.O.), with any uncertainties resolved by a third reviewer (M.H.R.).

Endpoints and definitions

Clinical and angiographic outcomes were assessed according to a predefined hierarchical structure. The primary outcome was major adverse cardiovascular events (MACE), evaluated at the longest available follow-up and, when reported, at 30 days, 6 months, 1 year, 2 years, and 5 years.

Secondary clinical outcomes included target lesion failure (TLF), target vessel failure (TVF), MI, all-cause mortality, cardiac death, definite or probable stent thrombosis, clinically driven target lesion revascularization (CD-TLR), serious adverse events, procedural-related adverse events, device-related adverse events, and dual antiplatelet therapy (DAPT) use at 12 months.

Secondary procedural outcomes included device success without 30-day MACE, device success, lesion success, and procedure success. Secondary angiographic outcomes included pre-procedure percent diameter stenosis of the lesion, post-procedure percent diameter stenosis within the stent, post-procedure percent diameter stenosis within the segment, and in-stent acute gain.

Assessment of selected outcomes involved follow-up evaluations at 30 days, 6 months, 1 year, 2 years, and 5 years, as summarized in the Central Illustration.

Quality assessment

The Cochrane Collaboration tool for assessing risk of bias in randomized trials (RoB-2) was used to evaluate the quality of individual RCTs.[15] Each trial received a rating of high, low, or some concerns for risk of bias across five domains: randomization process; deviations from intended interventions; missing outcome data; measurement of outcomes; and selection of reported results.

The risk of bias in non-randomized studies was assessed using the Risk Of Bias In Non-randomised Studies of Interventions (ROBINS-I) tool.[16] Each study received a rating of low, moderate, serious, or critical risk of bias across seven domains: confounding; selection of participants; classification of interventions; deviations from intended interventions; missing data; measurement of outcomes; and selection of reported results. Two independent authors (E.B. and C.F.) conducted the risk-of-bias assessments, and any disagreements were resolved unanimously with the senior author (M.H.R.).

We assessed the overall strength of evidence for each outcome using the guidelines developed by the Grades of Recommendation, Assessment, Development, and Evaluation (GRADE) working group. Using the GRADEpro Guideline Development Tool, two independent authors (E.B. and C.F.) rated the certainty of evidence as high (⊕⊕⊕⊕), moderate (⊕⊕⊕◯), low (⊕⊕◯◯), or very low (⊕◯◯◯).[17]

Statistical analysis

A generalized linear mixed model (GLMM) was used to estimate the number of events per 100 observations for each outcome, along with corresponding 95% confidence intervals (CI). Heterogeneity was assessed using the Cochrane Q-test and the I^2 statistic; heterogeneity was considered statistically significant when $p < 0.05$ or $I^2 > 25\%$. All statistical analyses were performed using R statistical software, version 4.2.3 (R Foundation for Statistical Computing).[18]

Results

Study selection

The initial search yielded 59 records from PubMed (n = 27), Embase (n = 21), and Cochrane (n = 11), as detailed in Figure 1. After removing 23 duplicate records and screening titles and abstracts, eight full-text articles[1,5,8,19-23] corresponding to six studies with eight reports – were retained for full review based on the prespecified criteria and met the inclusion criteria. Konigstein et al.[20] represents the 2-year follow-up of the NIREUS[21] and BIONICS[8] study populations, which originally reported outcomes up to 1 year. Zornitzki et al.[23] corresponds to the 5-year follow-up of the same NIREUS[21] and BIONICS[8] cohorts.

Baseline characteristics of the included studies and patients

Across the six included studies comprising 1,709 patients, 76% were men, the mean age was 63 years, 35% had a history of MI, 41% had undergone prior PCI, and 41% presented with acute coronary syndrome. The mean lesion length was 17.28 mm, and ACC/AHA lesion class B2/C accounted for 61% of all lesions. The left anterior descending artery (LAD) represented 34% of target vessels. Study and participant characteristics are summarized in Table 1 and the Central Illustration.

Pooled analysis of all studies

In the pooled analysis, the proportion of device success was 98.19% (Figure 2A), procedure success was 98.09% (Figure 2B), and lesion success was 99.74% (Figure 2C).

Clinical outcomes

Primary outcome

The primary outcome was MACE. The pooled proportion of MACE increased progressively over

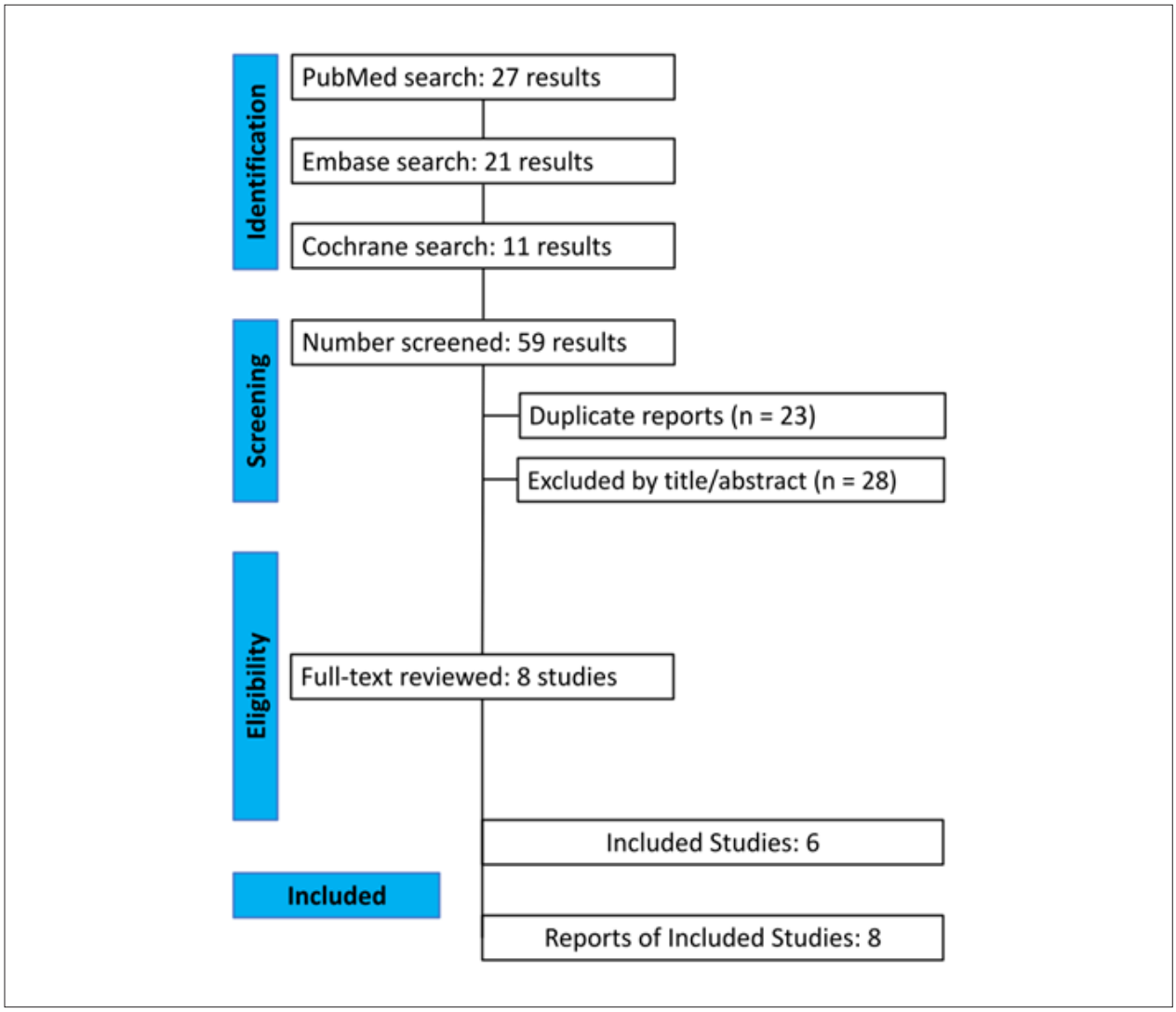


Figure 1 – *PRISMA flow diagram of study selection*

follow-up, from 2.72% at 30 days to 16.22% at 5 years, with the greatest between-study variability observed at 2 years (8.54%; 95% CI 7.00–10.30; I^2 = 74%; Figure 3). Overall, these descriptive pooled estimates suggest low MACE rates during short- and intermediate-term follow-up, with higher cumulative event rates at longer intervals. However, given the non-comparative nature of the available evidence and the presence of heterogeneity, these findings should not be interpreted as evidence of comparative efficacy or safety relative to other DES platforms.

Secondary clinical outcomes

Among secondary clinical outcomes, the pooled proportion of device success without 30-day MACE was high, although relevant between-study variability was observed (Supplementary Figure S1). Mortality-related outcomes remained uncommon during early follow-up and increased gradually over time. All-cause mortality was negligible at 30 days and 6 months, increasing modestly at later follow-up intervals, particularly at 2 years (4.11%; 95% CI 0.86–9.60; Figure 4). Similarly, cardiac death was absent or negligible during early follow-up and increased at longer follow-up, reaching 3.36% at 5 years (95% CI 2.40–4.57; Supplementary Figure S2).

MI remained within a low range during short- and intermediate-term follow-up, with higher cumulative estimates at 2 and 5 years (Supplementary Figure S3). TVF increased progressively across follow-up intervals, from 2.95% at 30 days to 18.03% at 5 years (95% CI 15.86–20.37; Figure 5). TLF showed a similar descriptive temporal pattern, increasing from 2.67% at 30 days to 11.73% at 5 years (95% CI 9.94–13.73; Supplementary Figure S4). CD-TLR also increased between 1 and 5 years, following the same general direction observed for TLF

Table 1 – Design and characteristics of the studies included in the meta-analysis

Study	Follow-up (months)	N of patients	Mean age (SD)	Male, n (%)	Diabetes, n (%)	Hypertension, n (%)	Hyperlipidemia, n (%)	Current smoker, n (%)	Previous MI, n (%)	Previous PCI, n (%)
BIONICS 2017	12	958	63.7 (10.2)	750 (78.3)	314 (32.8)	687 (72.4)	759 (80.4)	224 (23.4)	298 (31.1)	372 (38.8)
NIREUS 2018	12	201	61.4 (9.9)	156 (77.6)	53 (26.4)	149 (74.5)	152 (79.2)	52 (25.9)	60 (29.9)	81 (40.3)
JNIR 2021	24	104	69.1 (9.4)	83 (79.8)	35 (33.7)	82 (78.8)	89 (85.6)	19 (18.3)	23 (22.1)	50 (48.1)
Arow 2023	N/A	81	63 (10)	58 (71)	35 (43)	65 (80)	67 (83)	N/A	37 (46)	N/A
BIONICS 38mm 2023	12	50	64.6 (9.7)	38 (76)	20 (40)	35 (70)	38 (77.6)	15 (30.6)	17 (34)	18 (36)
Kornowski 2024	N/A	315	75.2 (9.8)	218 (69.2)	160 (50.8)	277 (88.2)	272 (87.5)	35 (11.1)	167 (53.7)	146 (46.6)

MI: myocardial infarction; N/A: not available; PCI: percutaneous coronary intervention; SD: standard deviation; note: statistical significance was defined as P < 0.05 for all included studies

(Supplementary Figure S5A). DAPT use at 12 months was frequently reported across the included studies (Supplementary Figure S5B).

In contrast, stent thrombosis remained uncommon across all follow-up intervals, including at 6 months, when the pooled proportion was 0.76% (95% CI 0.11–5.22; I^2 = 0%; Figure 6), and at 5 years, when it remained below 1% (0.86%; 95% CI 0.41–1.58; Figure 6). Device-related adverse events were infrequent, whereas procedural-related adverse events and serious adverse events showed substantial between-study heterogeneity, which may reflect differences in patient selection, procedural complexity, follow-up duration, and outcome reporting across studies (Supplementary Figures S6 and S7).

Angiographic outcomes

Secondary angiographic outcomes

Angiographic outcomes were analyzed as secondary outcomes. Overall, the pooled angiographic estimates showed a reduction in residual stenosis after the procedure, although considerable heterogeneity was observed across most procedural metrics. The mean pre-procedural diameter stenosis was 72.18% (95% CI 66.31–78.57; I^2 = 99%; Figure 7C), whereas post-procedural residual stenosis was lower both within the stent and within the treated segment (Figure 8A–B). These findings indicate substantial acute luminal improvement after RES implantation in the included studies, but they should be interpreted descriptively and not as evidence of superiority, equivalence, or adequacy compared with other contemporary DES platforms.

The included studies reported variable stented lesion lengths and acute stent gain, reflecting differences in lesion complexity, vessel characteristics, and procedural strategies (Figure 7A–B). The substantial heterogeneity observed across several angiographic parameters likely reflects clinical and anatomical variability among the included populations, as well as differences in quantitative coronary angiography methods and reporting standards.

Risk of Bias assessment

RoB-2 identified the two randomized trials as having a low risk of bias, as detailed in Supplementary Appendix S8. ROBINS-I identified four studies as having a moderate risk of bias, primarily driven by confounding, as shown in Supplementary Figure S8.

According to the GRADE framework, the certainty of evidence was generally low to very low across the included outcomes, reflecting the observational nature of most available data, heterogeneity among studies, and imprecision in several pooled estimates. Most clinical endpoints were supported by low-certainty evidence, whereas outcomes with substantial heterogeneity – particularly adverse events and angiographic measures – were judged to have very low certainty. Moderate

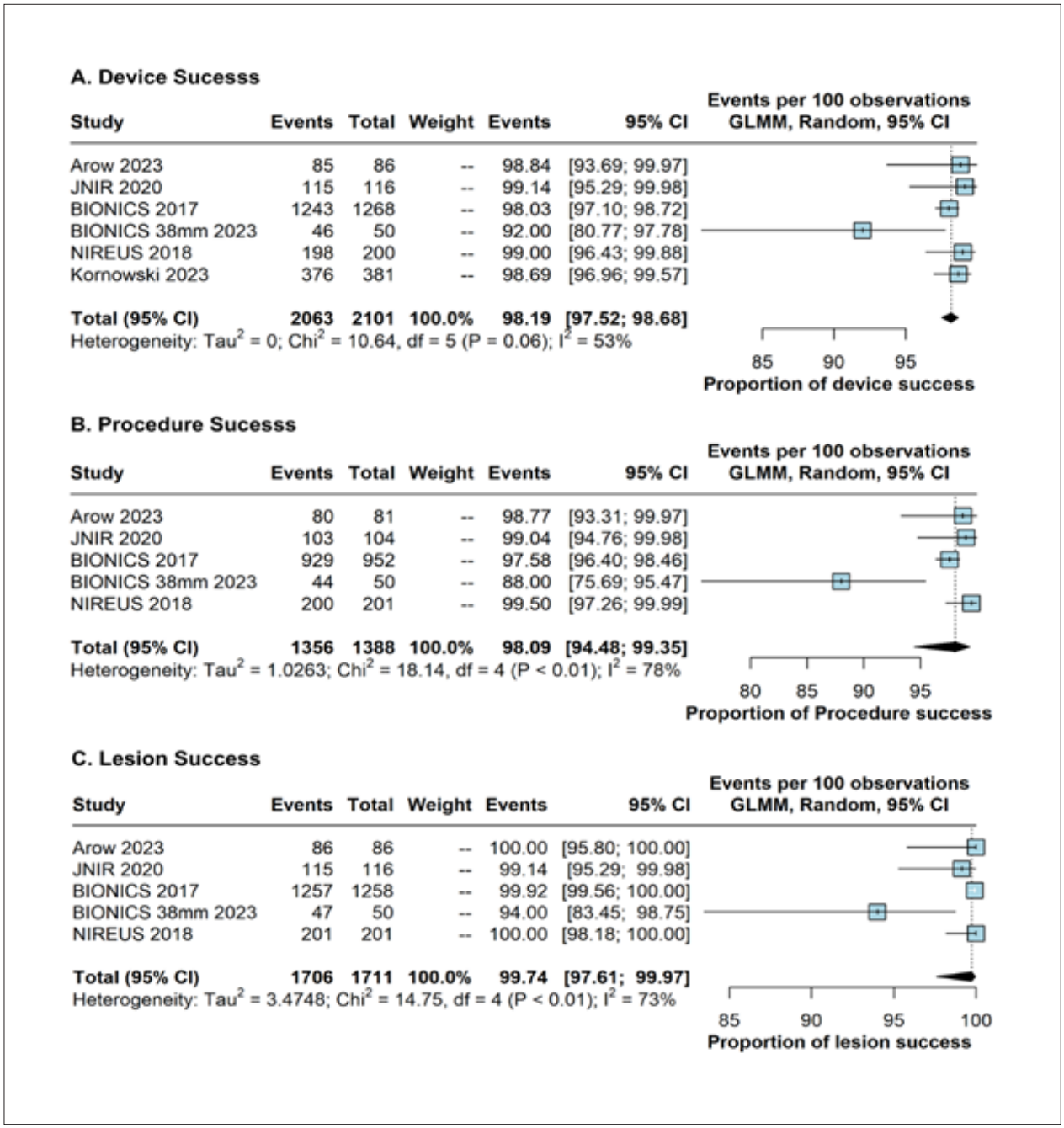


Figure 2 – *Pooled analysis of A. Device success; B. Procedure success; C. Lesion Success. aGLMM: generalized linear mixed model; CI: confidence intervals.*

certainty was assigned only to selected outcomes with low heterogeneity and narrower CIs, such as 12-month DAPT use. The complete outcome-specific GRADE assessment is presented in Table 2.

Discussion

In this comprehensive systematic review and meta-analysis encompassing six studies and 1,709 patients, we evaluated the clinical and angiographic outcomes of RES in the treatment of CAD. The main findings of this pooled descriptive analysis were as follows: (1) device success, lesion success, and procedure success rates exceeded 98%; (2) adverse clinical outcomes – including all-cause mortality, MACE, MI, definite or probable stent thrombosis, TLF, and TVF – were numerically low across reported follow-up periods; (3) angiographic endpoints demonstrated the expected

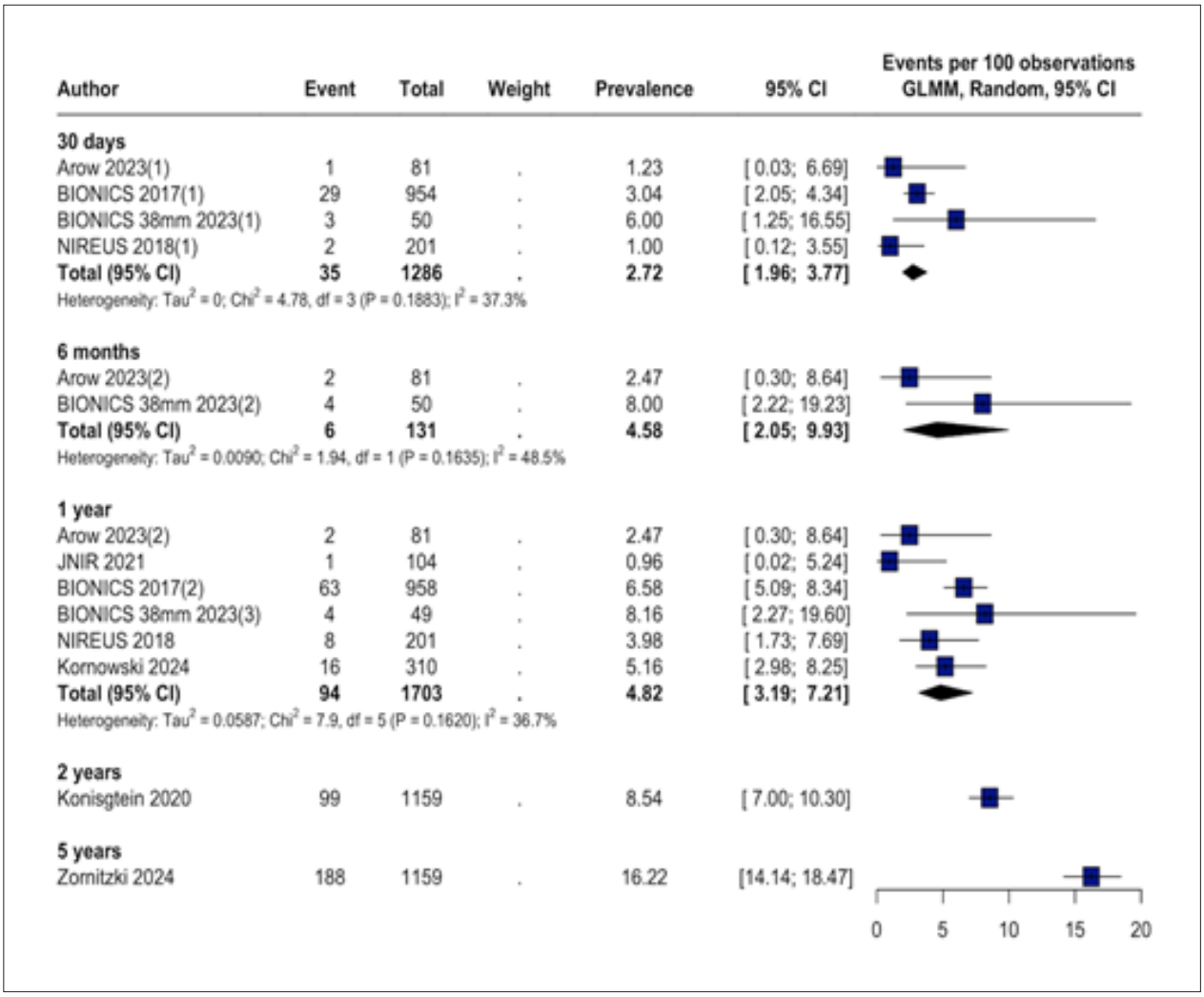


Figure 3 – *Forest plots for the endpoint of MAC. GLMM: generalized linear mixed model; CI: confidence intervals.*

post-procedural reductions in percent diameter stenosis compared with baseline lesion stenosis; (4) the pooled in-stent acute gain was 1.54 mm.

The superiority of DES over BMS has been demonstrated in previous meta-analyses.[7,9] Among new-generation DES, Piccolo et al.[7] reported reduced risks of cardiac death, MI, stent thrombosis, and target vessel revascularization compared with BMS. However, within the DES category, studies comparing 5-year clinical outcomes between durable-polymer DES (DP-DES) and biodegradable-polymer DES (BP-DES) have produced mixed results.[24,25] As an alternative to developing new DP-DES, a cobalt-alloy RES was created using durable polymers and offering a higher therapeutic-to-toxicity margin than other sirolimus-eluting stents.[20]

RES releases ridaforolimus to inhibit neointimal proliferation, and its thin-strut platform with an elastic copolymer coating was designed to facilitate stent expansion and vessel-wall apposition. These device characteristics provide a plausible mechanistic rationale for the observed clinical and angiographic findings; however, they should not be interpreted as evidence of comparative benefit in the absence of a control group.[21,22]

Both the BIONICS[8] and NIREUS[21] trials reported procedure, lesion, and device success rates exceeding 97.5%. In these studies, RES was evaluated against zotarolimus-eluting stents (ZES), with both groups demonstrating high procedural success. In the present single-arm pooled analysis, procedural success rates also appeared numerically high across the included studies. However, these observations should be interpreted descriptively only, as no direct or indirect comparative inference can be made from cross-study comparisons given differences in study design, patient populations, endpoint definitions, and follow-up duration. In addition, our pooled analysis demonstrated the expected immediate angiographic changes associated with successful stent deployment, reflected in pre- to post-procedure improvements within the treated lesions.

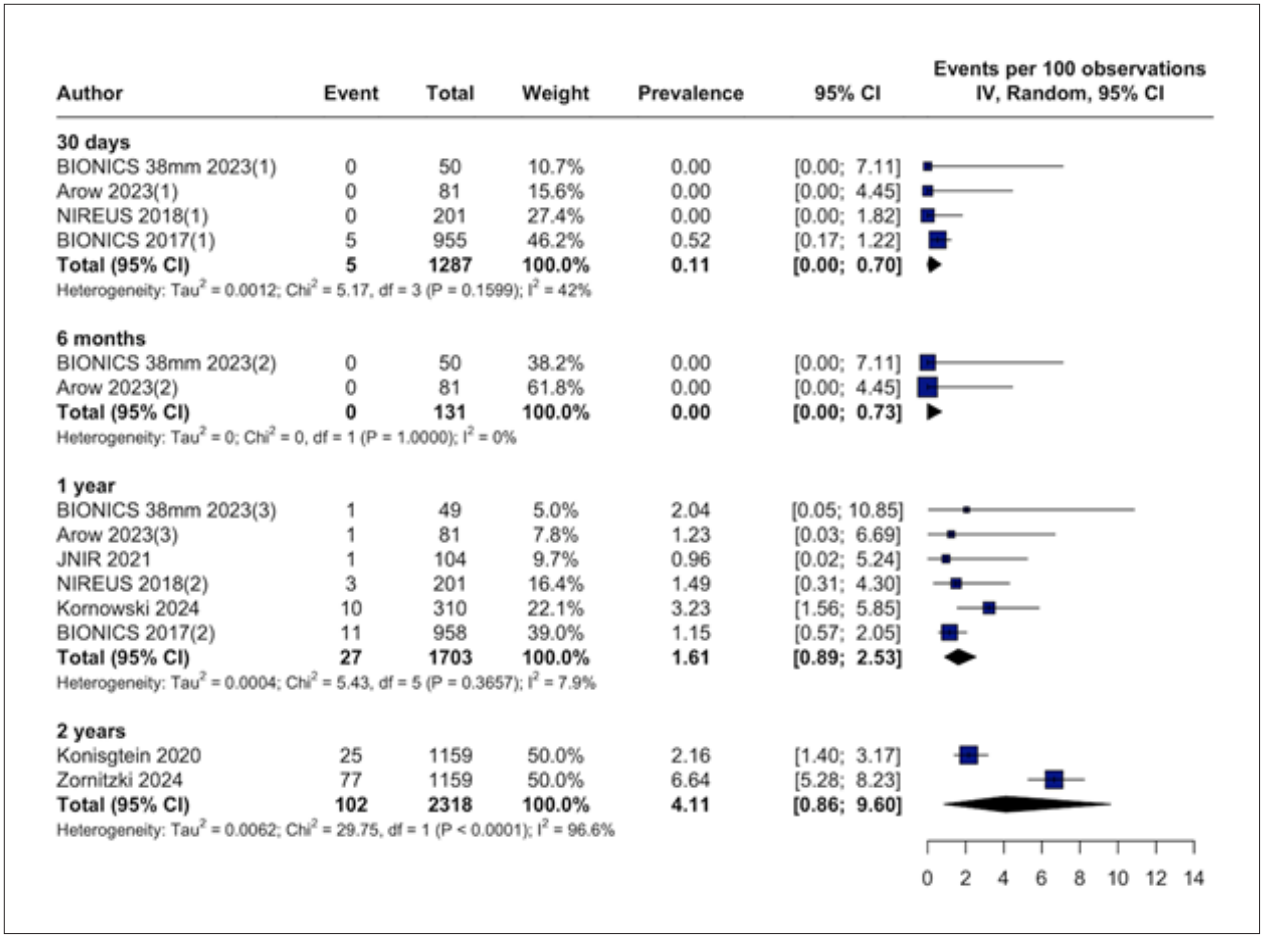


Figure 4 – *Forest plot of pooled analysis of the all-cause mortality outcome. CI: confidence intervals.*

These outcomes included acute gain within the stent, as well as reductions in pre-procedure percent diameter stenosis in the lesion and post-procedure percent diameter stenosis both within the stent and within the treated segment. Specifically, in-stent acute gain reached up to 1.70 mm, consistent with ranges reported in prior RES studies. However, our pooled analysis demonstrated a total gain of 1.54 mm, which can be attributed to the smaller vessel sizes included in the Arrow study.[5] This anatomical characteristic likely limited in-stent gain compared with other trials, such as BIONICS,[8] NIREUS,[21] and the BIONICS 38-mm trial.[19]

Our pooled analysis showed reductions of 58.74% when comparing post-procedure percent diameter stenosis in-stent with pre-procedure percent diameter stenosis in the lesion, and 55.51% when comparing post-procedure percent diameter stenosis in-segment with pre-procedure percent diameter stenosis in the lesion. These angiographic findings appeared numerically consistent with those reported for ZES in the BIONICS[8] and NIREUS[21] trials; however, no formal comparison can be made because of differences in study design, patient populations, lesion characteristics, and the non-comparative nature of the present analysis.

Clinical outcomes with contemporary DES have been evaluated in prior randomized evidence and may provide useful descriptive context for interpreting the present findings, although no formal comparison is possible. In a meta-analysis of randomized trials comparing biodegradable-polymer DES with second-generation durable-polymer DES, El-Hayek et al.[24] found no significant differences in target vessel revascularization, cardiac death, MI, or definite/probable stent thrombosis at intermediate and long-term follow-up. Importantly, absolute event rates for definite or probable stent thrombosis were low in both groups (0.98% vs. 1.15%), and very late stent thrombosis rates beyond 1 year remained below 0.5% in both arms.[24]

Across RES-specific studies, all-cause mortality generally remained within the low single-digit range, although variation was observed across trials. For example, in the Kornowski trial – which specifically enrolled patients at high bleeding risk – the 1-year all-cause mortality rate was 3.23%.[22] Likewise, the BIONICS 38-mm trial[19] reported a higher 1-year all-cause mortality burden (8.16 events per 100 observations), which may plausibly reflect the increased lesion complexity associated with long coronary lesions rather

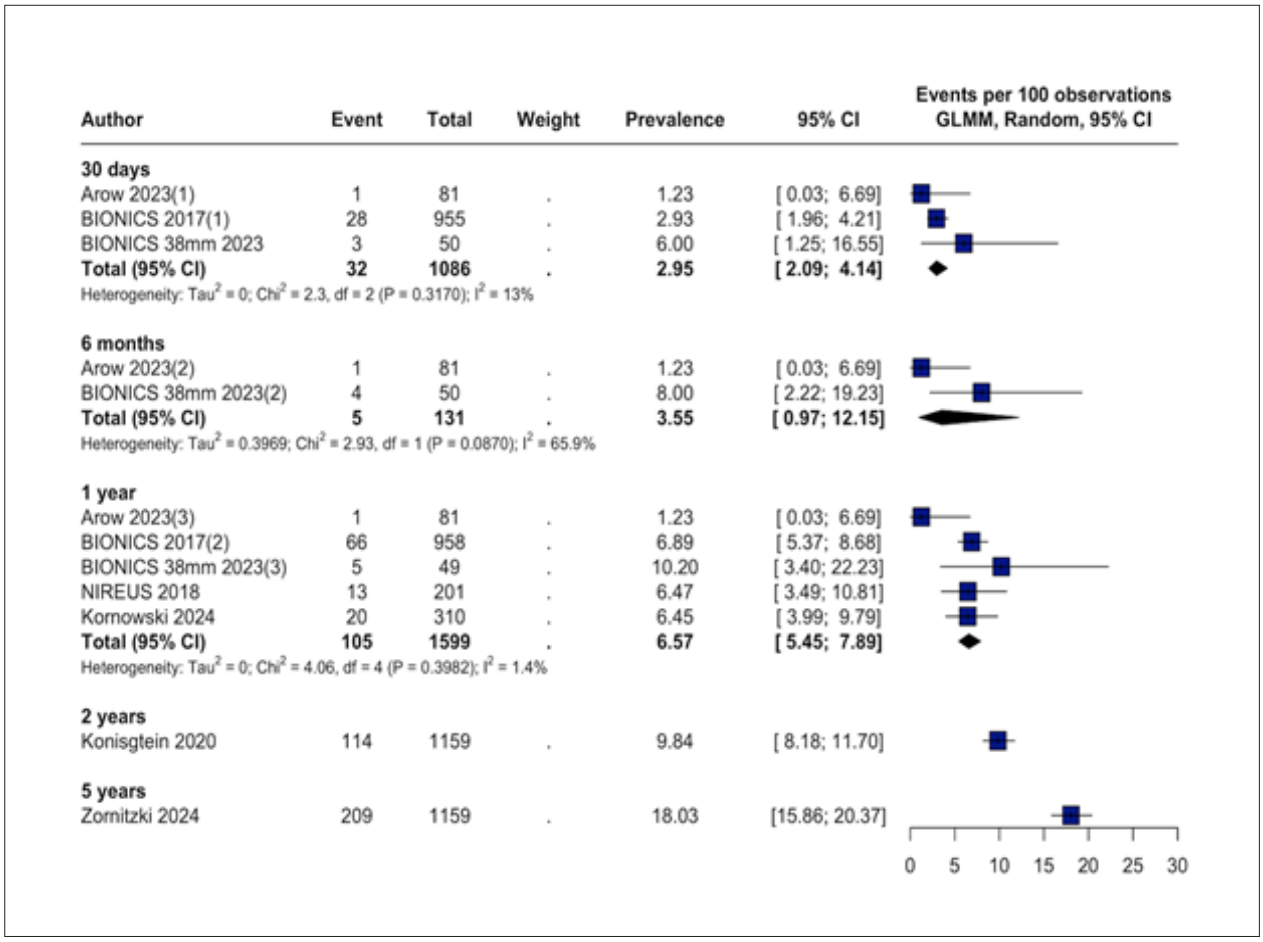


Figure 5 – *Forest plot of pooled analysis of the TVF outcome. GLMM: generalized linear mixed model; CI: confidence intervals.*

than device-related performance alone. In contrast, lower rates were reported in the JNIR[1] and NIREUS[21] studies. Collectively, these differences likely reflect heterogeneity in patient selection, lesion complexity, endpoint definitions, and follow-up duration across studies, rather than directly comparable differences in stent performance.

Within this broader contemporary DES context, the observed RES estimates should be interpreted cautiously as descriptive, non-comparative pooled event rates. In our analysis, the 1-year rates of TLF (3.89%), MACE (4.82%), and definite or probable stent thrombosis (0.47%) remained within low absolute ranges. Although differences in study design, patient risk profile, lesion complexity, endpoint definitions, and follow-up duration preclude any direct or adjusted comparison with prior DES studies, these findings may be viewed as broadly consistent with the low event burden generally reported in the modern DES literature.

Finally, when placed in the descriptive context of ZES outcomes reported in the BIONICS and NIREUS trials, RES outcomes appeared numerically similar for all-cause mortality, TLF, TVF, definite or probable stent thrombosis, MI, and MACE. However, these observations do not allow formal comparison or inference of equivalence, superiority, or non-inferiority.

This study has several limitations. First, the principal limitation is the non-comparative nature of this meta-analysis, as the pooled estimates were derived primarily from single-arm outcome reporting and therefore should be interpreted as descriptive event rates rather than evidence of comparative efficacy or safety versus other DES platforms. No causal, superiority, equivalence, or adequacy inferences can be made in the absence of a concurrent control group.

Second, RCTs and observational studies were combined within the same pooled analyses. Although this approach was adopted because of the limited number of eligible studies and the scarcity of randomized evidence specifically evaluating RES, it may have introduced additional methodological and clinical heterogeneity related to differences in study design, patient selection, procedural characteristics, follow-up protocols, and outcome ascertainment. Therefore, these pooled estimates should be interpreted cautiously and primarily as descriptive summaries

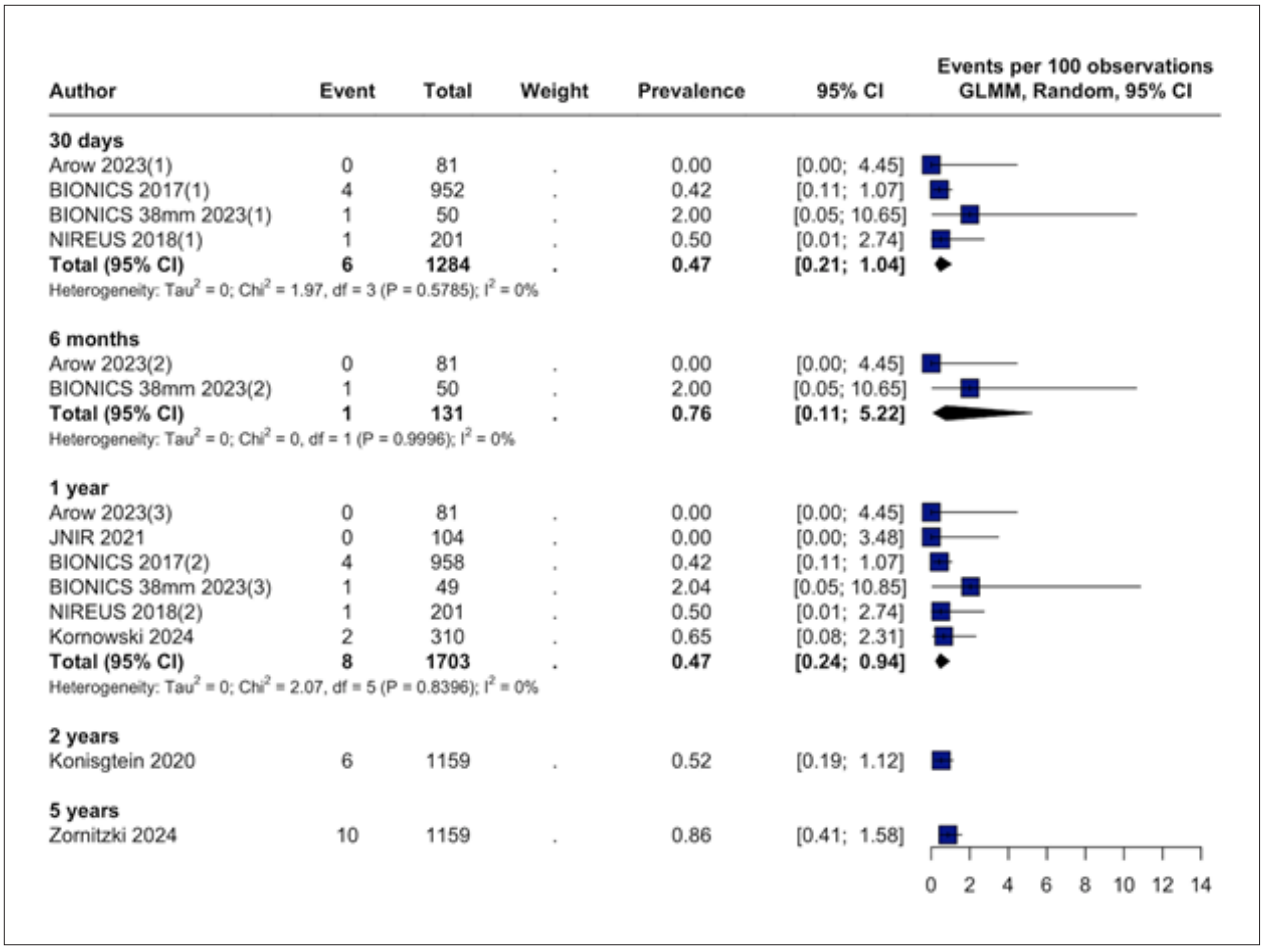


Figure 6 – *Forest plot of pooled analysis of the stent thrombosis outcome. GLMM: generalized linear mixed model; CI: confidence intervals.*

of the available evidence. Stratified or sensitivity analyses according to study design would have been methodologically desirable; however, they were not feasible because of the limited number of eligible studies and the structure of the currently available follow-up datasets. In particular, subgroup analyses by study design would likely have produced unstable and potentially non-informative estimates, while further separation across follow-up periods risked combining studies with highly similar timepoints and partially overlapping patient populations.

Third, some outcomes exhibited moderate to high heterogeneity, with certain studies exerting substantial influence on the pooled estimates; to address this, we employed random-effects models for all outcomes.

Fourth, variability in lesion and vessel lengths may have contributed to clinical heterogeneity.

Conclusion

This is the first meta-analysis to systematically summarize the available clinical and angiographic outcomes reported with RES. In this single-arm pooled analysis, RES was associated with high procedural success rates, low observed rates of MACE, MI, TLF, TVF, and all-cause mortality, and favorable post-procedural angiographic findings. Given the single-arm design of the included evidence, these findings should be interpreted as descriptive, non-comparative pooled estimates of procedural, clinical, and angiographic outcomes after RES implantation. Although the observed results may support procedural feasibility and provide an initial characterization of outcomes, they do not allow conclusions regarding comparative effectiveness, clinical adequacy, or relative clinical value. Head-to-head RCTs versus contemporary DES platforms are necessary before RES can be meaningfully positioned in clinical practice.

Author Contributions

Conception and design of the research: Bertoli ED, Fukunaga CK, Martins V, Ribeiro MH; acquisition of data: Bertoli ED, Martins V, Silva EVB, Motta RFOS, Katsuyama E; analysis and interpretation of the data:

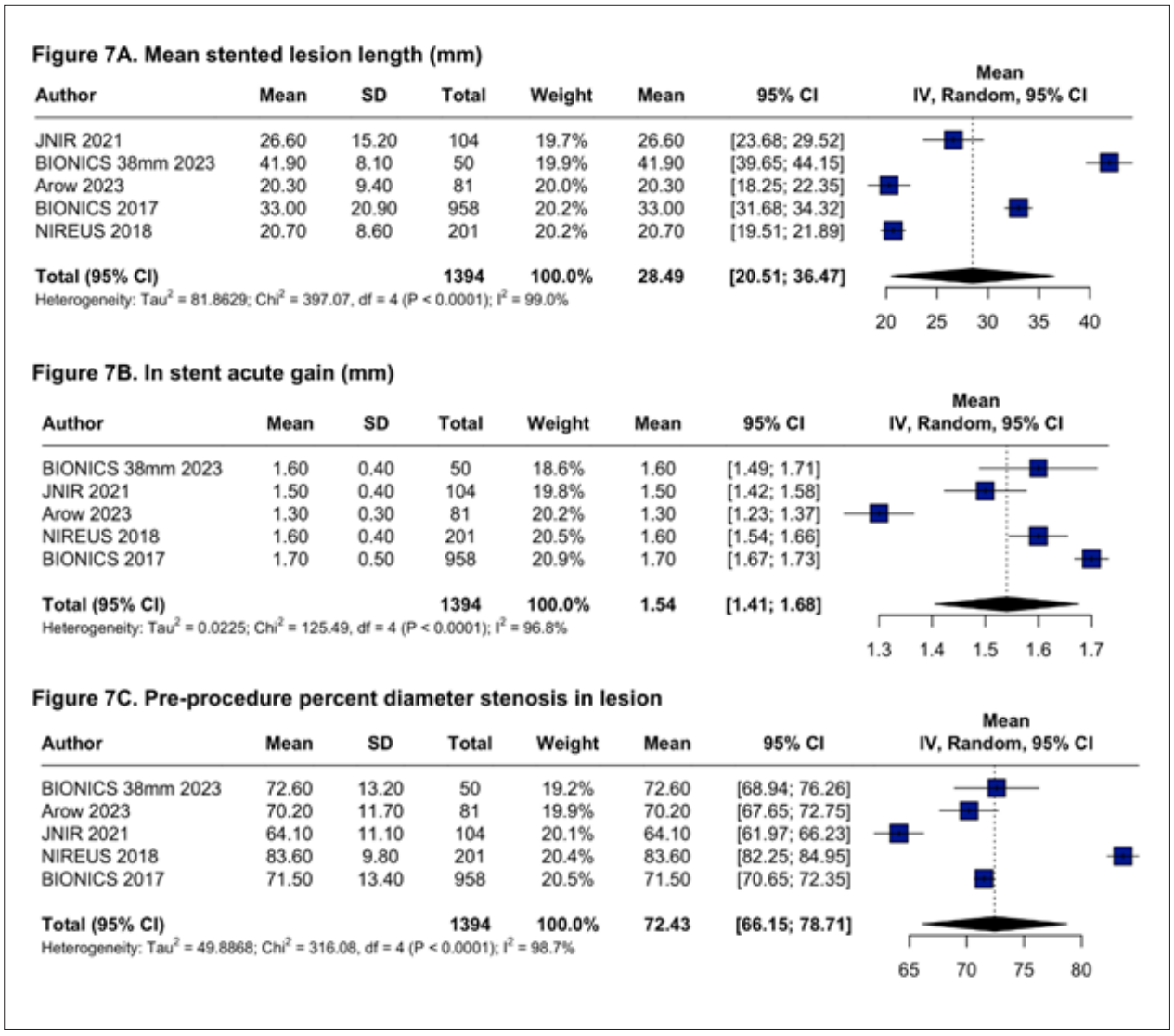


Figure 7 – *Pooled analysis of A. Mean stented lesion length (mm); B. In stent acute gain (mm); C. Pre-procedure percent diameter stenosis in lesion. CI: confidence intervals; SD: standard deviation.*

Bertoli ED, Fukunaga CK, Floriano IT, Ribeiro MH; statistical analysis: Fukunaga CK, Floriano IT; writing of the manuscript: Bertoli ED, Fukunaga CK, Martins V, Silva EVB ; critical revision of the manuscript for intellectual content: Silva EVB, Motta RFOS, Katsuyama E, Floriano IT, Oliveira MD, Silveira C, Dallan LA, Ribeiro MH; study supervision: Ribeiro MH.

Conflicts of Interest

No potential conflict of interest relevant to this article was reported.

Sources of Funding

There were no external funding sources for this study.

Study Association

This study is not associated with any thesis or dissertation work.

Ethics Approval and Consent to Participate

This article does not contain any studies with human participants or animals performed by any of the authors.

Use of Artificial Intelligence

The authors did not use any artificial intelligence tools in the development of this work.

Availability of Research Data

The underlying content of the research text is contained within the manuscript.

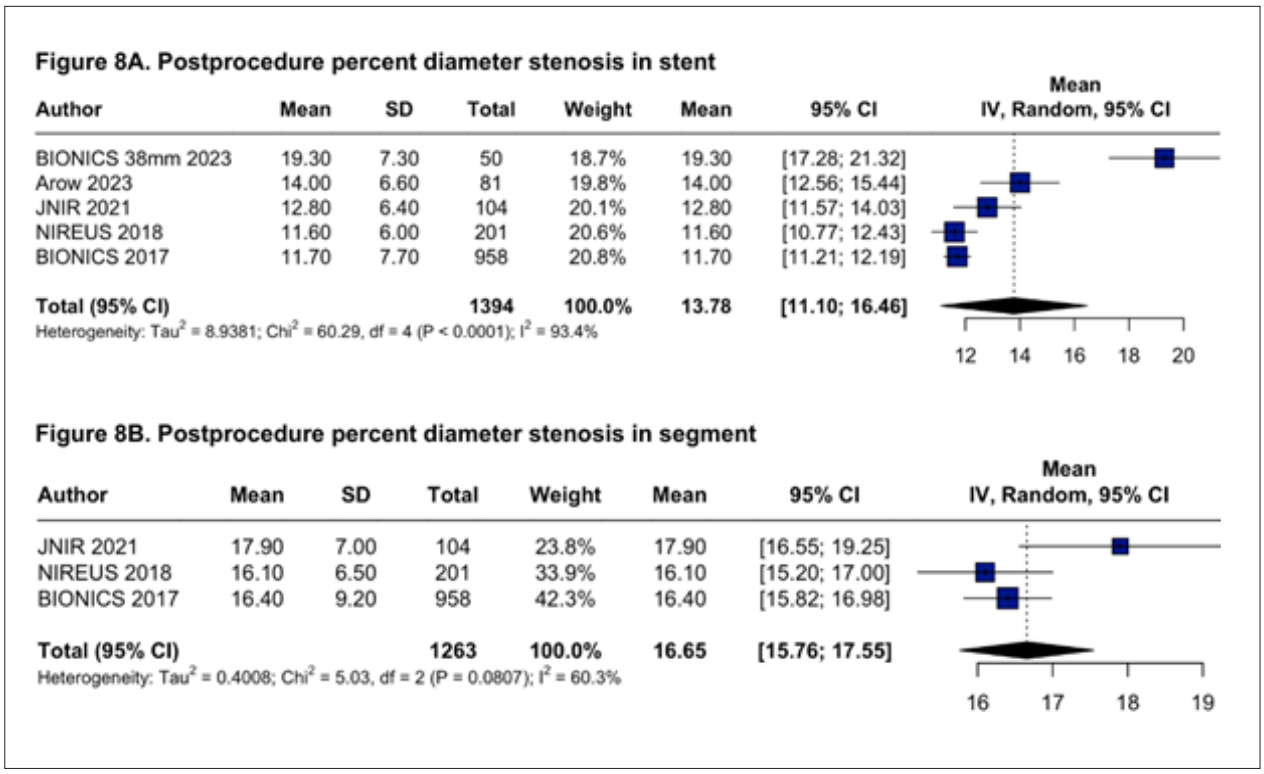


Figure 8 – *Pooled analysis of A. Postprocedure percent diameter stenosis in stent; B. Postprocedure percent diameter stenosis in segment. CI: confidence intervals; SD: standard deviation.*

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*Supplemental Materials

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