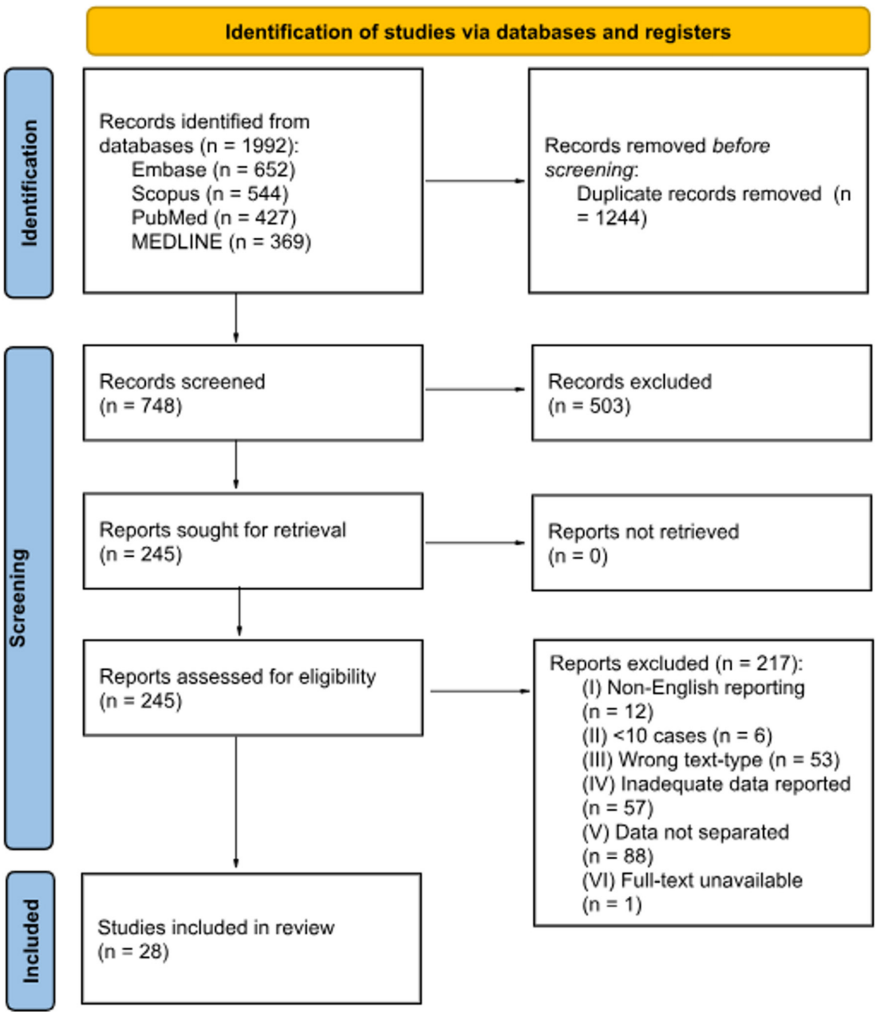


**Figure S1** Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) flowchart.


https://dx.doi.org/10.21037/acs-2025-evet-0058

**Table S1** Modified Canadian National Institute of Health Economics (CNIHE) quality appraisal scoring

| Author, year | Q1 | Q2 | Q3 | Q4 | Q5 | Q6 | Q7 | Q8 | Q9 | Q10 | Q11 | Q12 | Q13 | Q14 | Q15 | Q16 | Q17 | Q18 | Total | Quality |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Aftab, 2017 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 16 | High |
| Arnold, 2023 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 16 | High |
| Beckmann, 2020 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 16 | High |
| Burysz, 2024 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 16 | High |
| Charchyan, 2020 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 16 | High |
| Coselli, 2024 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 17 | High |
| Cuko, 2023 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 16 | Moderate |
| El-SayedAhmad, 2019 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 13 | Moderate |
| El-SayedAhmad, 2016 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 13 | High |
| Fiorentino, 2021 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 15 | High |
| Furutachi, 2023 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 16 | High |
| Jakob, 2017 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 15 | High |
| Kim, 2024 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 15 | High |
| Koizumi, 2022 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 15 | High |
| Koizumi, 2018 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 15 | High |
| Kozlov, 2024 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 16 | High |
| Kremer, 2019 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 15 | High |
| Liebrich, 2021 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 15 | High |
| Luo, 2021 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 16 | High |
| Masiello, 2022 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 15 | High |
| Morisaki, 2022 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 16 | High |
| Panfilov, 2025 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 16 | High |
| Qi, 2019 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 16 | High |
| Sun, 2010 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 15 | High |
| Sun, 2009 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 15 | High |
| Suzuki, 2023 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 16 | High |
| Verhoye, 2014 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 16 | High |
| Zhong, 2018 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 16 | High |


https://dx.doi.org/10.21037/acs-2025-evet-0058

**Table S2** Modified Canadian National Institute of Health Economics (CNIHE) quality appraisal checklist

| Criteria No. | Criterion definition |
|---|---|
| 1 | Is the hypothesis/aim/objective of the study stated in the abstract, introduction, or methods section? (/1) |
| 2 | Are the characteristics of the patients included in the study clearly described? (/1) |
| 3 | Were the cases collected in more than one centre? (/1) |
| 4 | Are the eligibility criteria (inclusion and exclusion criteria) for entry into the study clearly stated? (/1) |
| 5 | Were patients recruited consecutively? (/1) |
| 6 | Did participants enter the study at a similar point in the disease? (/1) |
| 7 | Was the intervention of interest clearly described? (/1) |
| 8 | Were additional interventions (co-interventions) reported in the study? (/1) |
| 9 | Are the outcome measures established a priori? (/1) |
| 10 | Were the relevant outcomes measured with appropriate objective and/or subjective methods? (/1) |
| 11 | Were the relevant outcomes measured before and after the intervention? (/1) |
| 12 | Were the statistical tests used to assess the relevant outcomes appropriate? (/1) |
| 13 | Was the length of follow-up clearly described/reported? (/1) |
| 14 | Was the length of follow-up clearly described/reported? (/1) |
| 15 | Does the study provide estimates of the random variability in the data analysis of relevant outcomes? (/1) |
| 16 | Are the adverse events related with the intervention reported? (/1) |
| 17 | Are the conclusions of the study supported by results? (/1) |
| 18 | Are both competing interests and sources of support for the study reported? (/1) |


https://dx.doi.org/10.21037/acs-2025-evet-0058

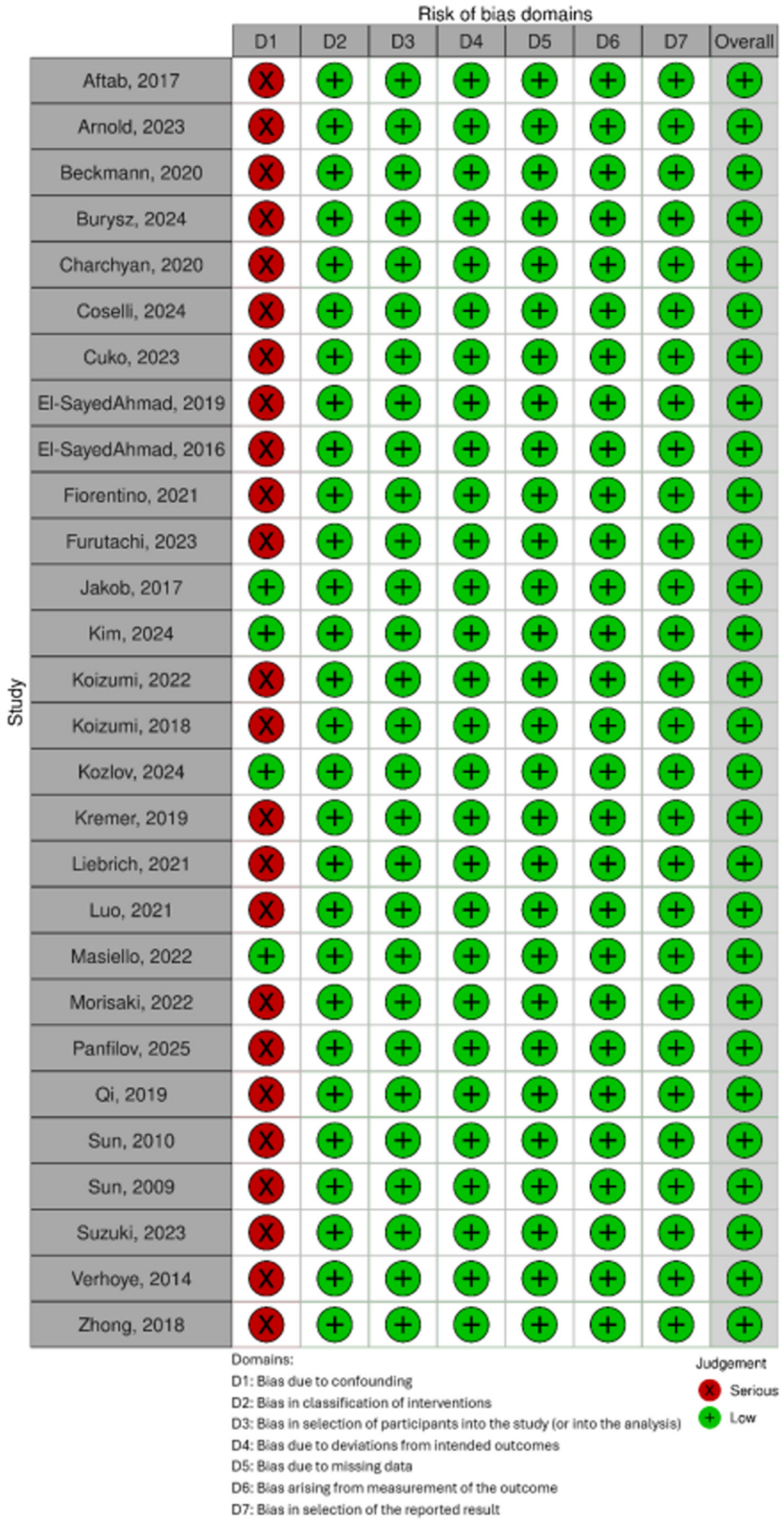


**Figure S2** Risk of bias assessment of included non-randomized studies utilizing the ROBINS-I V2 tool. ROBINS-I V2, Risk Of Bias in Non-randomized Studies of Interventions, Version 2.


https://dx.doi.org/10.21037/acs-2025-evet-0058

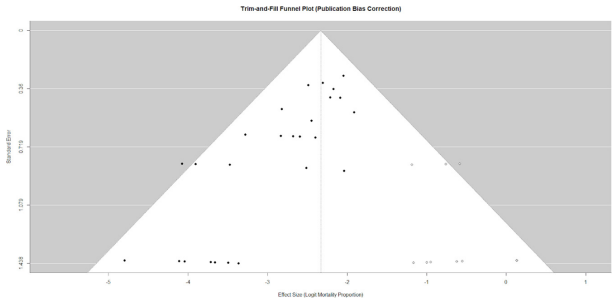


**Figure S3** Trim and fill funnel plot analysis of 30-day mortality and fET effect

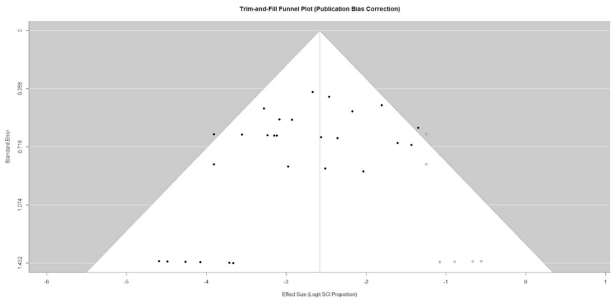


**Figure S4** Trim and fill funnel plot analysis of spinal cord injury and fET effect.

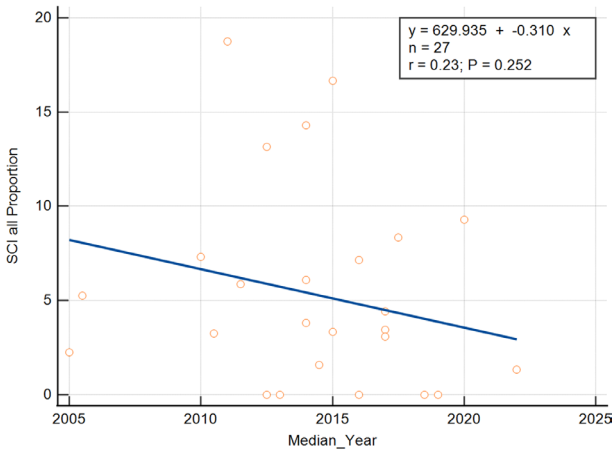


**Figure S5** Meta-regression analysis of rate of SCI in relation to median year of operation.

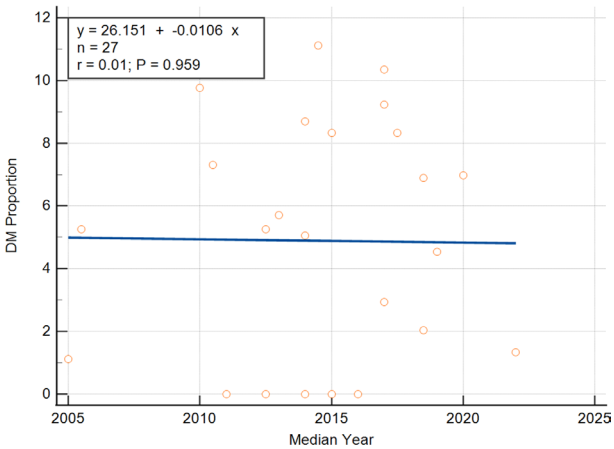


**Figure S6** Meta-regression analysis of rate of 30DM in relation to median year of operation.


https://dx.doi.org/10.21037/acs-2025-evet-0058