Transradial vs. Transfemoral Access for Percutaneous Coronary Intervention in STEMI: Meta-Analysis of Randomized Controlled Trials

Aravdeep Jhand et al.

Follow this and additional works at: https://digitalcommons.unmc.edu/gmerj

Part of the Higher Education Commons, and the Medicine and Health Sciences Commons

Recommended Citation
https://digitalcommons.unmc.edu/gmerj/vol2/iss1/59

This Conference Proceeding is brought to you for free and open access by DigitalCommons@UNMC. It has been accepted for inclusion in Graduate Medical Education Research Journal by an authorized editor of DigitalCommons@UNMC. For more information, please contact digitalcommons@unmc.edu.
Transradial vs. Transfemoral Access for Percutaneous Coronary Intervention in STEMI: Meta-Analysis of Randomized Controlled Trials

Creative Commons License

This work is licensed under a Creative Commons Attribution-Noncommercial-No Derivative Works 4.0 License.

This conference proceeding is available in Graduate Medical Education Research Journal: https://digitalcommons.unmc.edu/gmerj/vol2/iss1/59
were all-cause mortality, MI, stroke and repeat revascularization. Odds ratios (OR) and 95% Confidence Intervals (CI) were calculated. The analysis was performed using DerSimonian and Laird random effects model.

Results: In total, six studies (four observational and two randomized controlled trials) met our inclusion criteria with a total of 2198 patients (CABG: 1050, PCI: 1148). Patients undergoing CABG had a higher incidence of multivessel disease (74.7% vs 65.7%, p = 0.01) At a mean follow-up of 3.4 +/- 1.1 years, the incidence of MACCE was significantly lower in CABG group as compared to PCI group (OR = 0.70, 95% CI = 0.57 – 0.87; p = 0.001) (Figure 1). The odds of MI or repeat revascularization were lower with CABG, whereas the odds of stroke were higher; no statistically significant difference was seen in all-cause mortality.

Conclusion: Our analysis shows that CABG is associated with better long-term outcomes as compared to PCI in LMCAD patients with CKD.

https://doi.org/10.32873/unmc.dc.gmerj.2.1.056
1). At a mean follow-up of 2.3 +/- 2.8 months, rates of all-cause mortality (OR: 0.70, 95% CI = 0.56 – 0.88), major bleeding (OR: 0.58, 95% CI = 0.44 – 0.76) and vascular complications (OR: 0.38, 95% CI = 0.28 – 0.51) were lower in TRA as compared to TFA while there was no difference in rates of MACE, MI and stroke between groups.

**Conclusion:** Our analysis shows that TRA is associated with better long-term survival as compared to TFA along with lower rates of major bleeding and vascular complications in STEMI patients undergoing PCI.

https://doi.org/10.32873/unmc.dc.gmerj.2.1.057

Figure 1. Forest plots showing outcomes with transradial and transfemoral approaches in STEMI.

**Virchow's Triad in Action**

Adam Karevoll1, Trek Langenhan, Allison Ashford1

1University of Nebraska Medical Center, Department of Internal Medicine

**Mentor:** Mark Mailliard

**Program:** Internal Medicine

**Type:** Case Report

**Background:** A 21 year-old man presented with a two-day history of left leg pain and swelling following recent admission for non-traumatic splenic rupture due to presumed infectious mononucleosis. He had swelling, tenderness and erythema of the left lower extremity, primarily surrounding the calf. Doppler ultrasound revealed non-occlusive deep vein thrombosis (DTV) of the left proximal femoral vein and he was started on apixaban for anticoagulation. Laboratory workup for clotting disorder revealed heterozygous Factor V Leiden mutation. One week later his leg pain and swelling worsened. Repeat Doppler revealed extensive progression of the DVT despite appropriate treatment.

**Figure 1:**

- **Figure 1 A:** Procedure Duration
- **Figure 1 B:** Fluoroscopy Time
- **Figure 1 C:** Length of Stay
- **Figure 1 D:** All-Cause Mortality
- **Figure 1 E:** Major Adverse Cardiovascular Events
- **Figure 1 F:** Myocardial Infarction
- **Figure 1 G:** Stroke
- **Figure 1 H:** Vascular Complications

*Names in bold type indicate presenting author.*