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CATEGORIES VASCULAR ACCESS: Valvular Access: Coronary

**TCT-593**

Same Day Discharge via a Dedicated Radial Lounge: Results of One-Year Experience During the COVID-19 Pandemic

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BACKGROUND Same day discharge (SDD) is a validated option for selected patients undergoing coronary catheterizations and percutaneous coronary interventions (PCI). We analyzed how the COVID-19 pandemic influenced patient admissions to and discharges from our SDD radial lounge. We focused on safety and complications.

METHODS In 2021, 817 patients (age 65 ± 11 years; 28% female) were admitted to the radial lounge (53-87 patients per month). Coronary angiography (CAG) was performed in 729 patients, and 176 (24%) underwent ad hoc PCI. Furthermore, 88 patients were admitted through the radial lounge for implantable device replacement procedures (55 patients with permanent pacemakers and 33 patients with implantable cardioverter-defibrillators).

RESULTS Of 729 transradial CAGs, 621 were performed by using the conventional proximal radial approach (PRA) and 108 (15%) via the distal radial approach (DRA). Ninety percent of all procedures (n = 653) were performed from the nondominant left hand. Only one asymptomatic postprocedural radial artery occlusion (RAO) was diagnosed by finger oximetry testing (1 of 729 [0.1%]). DRA was associated with a shorter compression time compared with the PRA group (75 ± 26 minutes vs 92 ± 24 minutes; P < 0.05) and no RAO. In the PRA group, 23 postprocedural EASY grade 1 hematomas (3%) and 17 EASY grade 2 hematomas (2%) were observed but did not require specific treatment or longer hospital stay. DRA was associated with only 4 superficial hematomas <2 cm. No other relevant complications occurred in other patients, including 88 patients with device replacement procedures. Of the total 817 patients, 90% (n = 732) were discharged home on the same day of admission (<6 hours after procedures), and none of them was readmitted within the next 24 hours. The remaining 10% of patients (n = 85) were hospitalized after CAG and PCI, mostly because of severe coronary artery disease findings.

CONCLUSION During the COVID-19 pandemic, coronary catheterizations and interventions together with device replacement procedures in our SDD program with a dedicated radial lounge were associated with a 1-year saving of >700 overnight stays, minimal complications, and 0.1% RAO rate.

CATEGORIES OTHER: Vascular Access: Coronary

**TCT-594**

Impact of Arterial Access Site for Coronary Intravascular Lithotripsy Treatment of Severely Calcified Coronary Lesions: A Patient-Level Pooled Analysis of the Disrupt CAD III and CAD IV Studies

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BACKGROUND In percutaneous coronary interventions (PCIs), radial (R) rather than femoral (F) access is recommended due to lower rates of bleeding and vascular complications. Although the safety and effectiveness of intracoronary lithotripsy (IVL) for the treatment of coronary artery calcification have been shown, whether IVL procedural success or complication rates differ between R and F access sites is not known.

METHODS Individual patient-level data were pooled from the Disrupt CAD III and CAD IV studies, which collected access site data and shared uniform study inclusion/exclusion criteria, endpoint definitions, and use of independent angiographic core laboratory and clinical event committee adjudication. Procedural success, defined as stent delivery with residual stenosis <30% without in-hospital major adverse cardiovascular events (MACE), and vascular complications were compared based on R vs F access.

RESULTS The pooled population included 444 patients, with 281 (63.2%) cases performed using R access. Baseline demographics in each group were similar except for baseline comorbidities. Baseline stenosis (R 66 ± 11% vs F 64 ± 11%; P = 0.14) and lesion length (R 27 ± 12 mm vs F 26 ± 11 mm; P = 0.62) were similar between the groups. Procedural success and rates of 30-day MACE were similar by access site (Table 1).

| Vascular access complications | R Access (n = 281) | F Access (n = 163) | P Value  |
|------------------------------|------------------|------------------|---------|
| Procedural success*          | 91.1%            | 94.5%            | 0.27    |
| Vascular access site         | 1.1%             | 3.1%             | 0.25    |
| complications                |                  |                  |         |
| Any serious                  | 0.4%             | 0.6%             | 0.73    |
| angiographic                 |                  |                  |         |
| complications                |                  |                  |         |
| 30-day MACE                  | 8.9%             | 5.6%             | 0.27    |

*Defined as stent delivery with residual stenosis <30% without in-hospital MACE. Composite of flow-limiting dissection, perforation, abrupt closure, or slow/no-reflow.

CONCLUSION The current pooled analysis represents the largest comparison of R vs F access with coronary IVL for target lesion preparation. In the Disrupt CAD III and CAD IV trials, the majority of patients enrolled had R access despite high lesion complexity and device profile. Successful IVL catheter delivery was achieved and procedural outcomes for treatment of coronary artery calcification were similar regardless of access site.

CATEGORIES CORONARY: Coronary Atherectomy, Plaque Modulation, Lithotripsy, and Thrombectomy

VASCULAR ACCESS FOR STRUCTURAL HEART DISEASE INTERVENTION I

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**TCT-595**

Alternative Peripheral vs Transfemoral Access for Transcatheter Aortic Valve Replacement: A Meta-Analysis of Propensity-Matched Studies

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BACKGROUND While the femoral artery remains the preferred access for transcatheter aortic valve replacement (TAVR), alternative access via peripheral arteries such as the carotid or axillary artery may be desired when the feasibility of femoral access is in doubt. We compared outcomes of transfemoral (TF) and alternative peripheral (AP) TAVR by conducting a search and analysis of propensity-matched studies to evaluate their relative safety and efficacy.

METHODS The PubMed, EMBASE, and Cochrane Library databases from inception up to and including February 2022 were searched to identify articles reporting propensity-matched, comparative data on TF vs AP approaches for TAVR. Patients’ clinical outcomes were extracted from the articles and pooled for analysis.

RESULTS Seven studies, including a total of 9,004 patients, were included in the study, with 6,729 patients in the TF group and 2,275 patients in the AP group. Within each study, the baseline characteristics of the patients were propensity matched. Meta-analysis revealed higher in-hospital/30-day mortality (P = 0.02) as well as incidence of stroke (P = 0.003) for the AP group. There were no significant differences in clinical outcomes when comparing the TF and AP groups for major vascular complications, pacemaker implantation, bleeding, or acute kidney injury.

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