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## **Rate of Advanced Chronic Kidney Disease Patients Undergoing Transradial Approach for Coronary Intervention**

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**Objectives:** The transradial approach (TRA) for coronary intervention has replaced transfemoral approach (TFA) as the dominant approach in Korea because of its advantages. However, TRA can be associated with radial artery thrombosis and occlusion, which generates potential impact on the future creation of hemodialysis (HD) vascular access.

### **Methods:**

A total of 10,014 coronary angiographies performed in Seoul St. Mary's Hospital from January 2014 to September 2017 were reviewed. Patients younger than 18 years old, having HD vascular access, maintained on HD, or who used both TRA and TFA were excluded.

**Results:** Out of 10,014 angiographies, TRA (n=8,597,85.8%) was dominantly utilized compared with TFA (n= 1,417, 14.2%). Mean age was 65.5±11.5 years old, male 65.4%. Proportion of diabetics was higher in TFA (41.4%) compared with TRA (28.4%). Right-side approach was dominant in both TRA (96.9%) and TFA (88.1%). According to KDIGO CKD GFR category, advanced CKD (G3-G5) was observed in 1,754 (17.5%) patients (no CKD or G1 3,013, 30.1%; G2 5,247, 52.4%; G3a 1,098, 11.0%; G3b 463, 4.6%; G4 147, 1.5%; G5 46, 0.5%). Proportion of advanced CKD was higher in TFA (31%) compared with TRA (15.3%). While TRA was performed in 88.1% of no CKD, G1, or G2 patients, it was performed in 75% of G3-G5 patients. During follow-up, HD vascular access was created in 22 advanced CKD patients (TRA 7, TFA 15). In all 22 patients, right-side approach was performed for coronary intervention. On the other hand, all accesses were created in left arm except 3 AVF (1 radiocephalic in TRA, 1 radiocephalic and 1 brachiocephalic in TFA).

### **Conclusions:**

This study showed TRA was dominant for coronary intervention even in advanced CKD patients. Even though TRA has advantages over TFA, it is recommended to avoid TRA for coronary intervention in advanced CKD patients, because many of these patients may require dialysis.