Digital subtraction angiography-guided TDC performance superior to ultrasound-guided TDC in renal replacement

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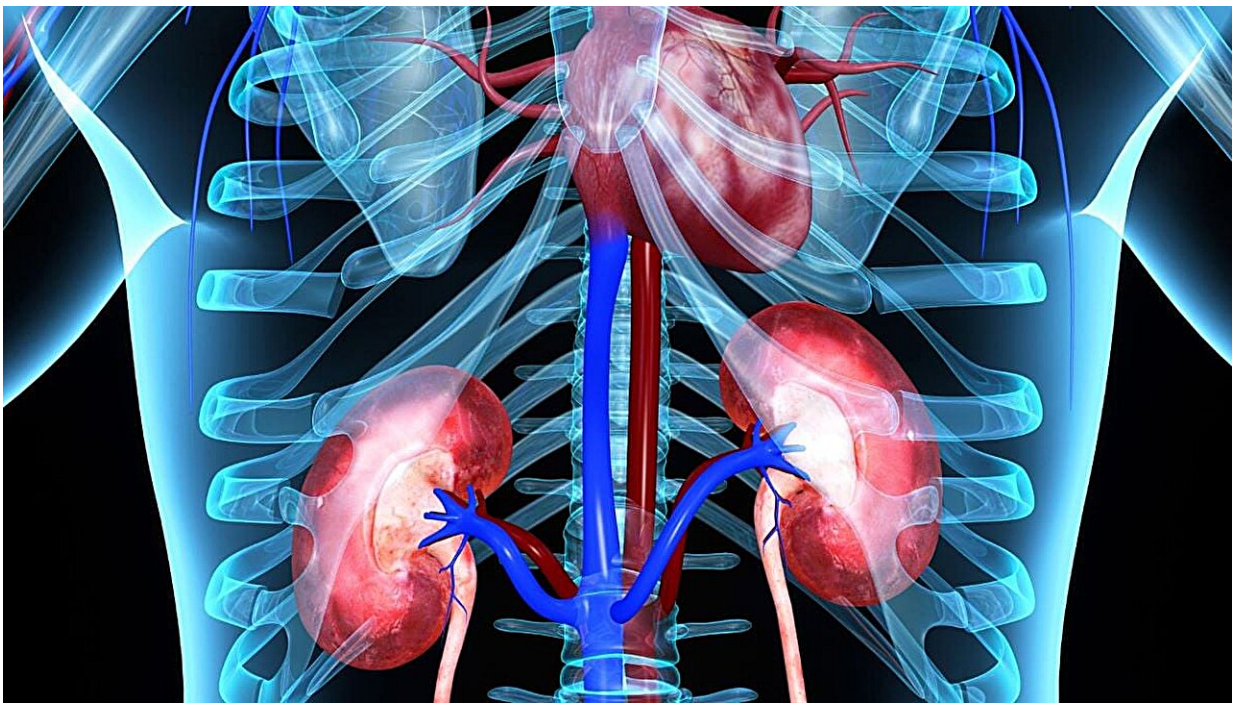

The performance of digital subtraction angiography (DSA)-guided tunneled dialysis catheters (TDC) is superior to that of ultrasound-guided TDC in renal replacement therapy, according to a study published online July 9 in *Renal Failure*.

Yiwei Shang, from the Zhejiang Provincial People's Hospital in China, and colleagues conducted a retrospective cohort study including all TDC placements performed between January 2020 and October 2022 to compare ultrasound- and DSA-guided TDC in renal replacement therapy. Data were included for 261 patients (142 in the DSA-guided group and 119 in the ultrasound-guided group); after propensity score matching, 91 patients were included in each group.

The researchers found that adequate catheter blood flow and ultrafiltration volumes without deviations from dialysis prescriptions were achieved in both groups (intraclass correlation coefficients ≥0.75). Fewer early dialysis terminations were seen in the DSA- versus the ultrasound-guided group (3.3 versus 12.0%). In the DSA-guided group, the position of the catheter tip in the right atrium was more consistent (100 versus 74.2%).

"This study recommends the use of DSA when the catheter tip cannot be reliably placed in the right atrium," the authors write.

More information: Yiwei Shang et al, Comparison of feasibility and effectiveness of tunneled dialysis catheter placement with or without DSA guidance: a propensity score-matched cohort study, *Renal Failure* (2024). DOI: 10.1080/0886022X.2024.2376935