In our propensity-score matched study, endovascular cooling catheters were associated with an increased risk of venous catheter-related thrombosis compared to standard central venous catheters” Andremont et al (2017).

Abstract:

BACKGROUND: Targeted temperature management (TTM) contributes to improved neurological outcome in adults who have been successfully resuscitated after cardiac arrest with shockable rhythm. Endovascular cooling catheters are widely used to induce and maintain targeted temperature in the ICU. The aim of the study was to compare the risk of complications with cooling catheters and standard central venous catheters.

MATERIALS AND METHODS: In this prospective single-centre cohort study, we included all patients admitted to an intensive care unit for successfully resuscitated cardiac arrest that required endovascular TTM (Coolgard®, Zoll™ Medical corporation, MA, USA), between August 2012 and November 2014, inclusive. We matched the endovascular cooling catheter cohort with a retrospective historical cohort of 512 central femoral venous catheters from the 3SITES trial to compare thrombotic and infectious complications.
RESULTS: Overall, 108 patients were included in the cooling cohort, of which 89 had ultrasound doppler. The duration of catheterization was 4.9 days in the control group vs 4.2 days in the TTM group (p=0.08). After propensity-score matching, there were significantly more thrombotic complications in the cooling (n=75) than in the control (n=75) group (12 of 75 (16%) vs 0 of 75 (0%), respectively, p=0.005), and 4 patients presented major complications. There were 8 colonized catheters in each group (11%) (p >0.99), and none of the patients had a catheter-related bloodstream infection.

CONCLUSIONS: In our propensity-score matched study, endovascular cooling catheters were associated with an increased risk of venous catheter-related thrombosis compared to standard central venous catheters.

Reference:


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