

This is a single-center, descriptive report of the management and complications of venous catheter use in 19 severely burned passengers from a bus fire that occurred on July 5, 2014, in Hangzhou” Jiang et al (2016).

Abstract:

PURPOSE: This is a single-center, descriptive report of the management and complications of venous catheter use in 19 severely burned passengers from a bus fire that occurred on July 5, 2014, in Hangzhou.

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METHODS: We recorded the parameters of the catheters insertion and indwelling. Sampling of each removed catheter was conducted to monitor for catheter-related infections. Bedside ultrasound screening was performed for recording central venous catheter (CVC)-related complications.

RESULTS: Of the 174 venous accesses placed, 108 were CVCs. 27 (25.0%) catheter tip cultures (CTC) were positive; 12 (11.1%) were catheter-related blood stream infections (CRBSI). *Acinetobacter baumannii* was the most prominent bacterial infection for both CTC- (55.56%) and CRBSI- (75.00%) positive catheters. CTC- and CRBSI-positive rates were higher during the emergency stage, and both dropped rapidly after reform measures (chi-square test, $p = 0.003$), and all were negative after the no.8 catheters. Accumulative regression results indicated that total body surface area burned (TBSA), number of catheters, days of indwelling, and bloodstream infections were independently associated with CTC results, while gender and number of catheters were independently associated with CRBSI results. 1 femur vein thrombosis was detected and cured.

CONCLUSIONS: Bedside ultrasound and professional IV team for CVC management are pivotal for massive burn victims. Their intervention helps control CVC-related infections and other complications. *A. baumannii* was the most frequent bacterial infection found in both

CTC- and CRBSI-positive catheters. Several most important factors associated with catheter-related infections were concluded. This information alerts us to watch for patients with such warning factors.

Reference:

Jiang, H., Hu, H., Ren, H., Han, C., Wang, X., You, C. and Zhao, R. (2016) Retrospective data about the catheter-related complications and management in massive bus burn casualties. The Journal of Vascular Access. April 7th. .

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