

“A total of 73 CRBSI patients were retrospectively studied in relation to patients’ clinical and epidemiological data, microbiological culture, and treatment” Tao et al (2015).

Reference:

Tao, F., Jiang, R., Chen, Y. and Chen, R. (2015) Risk factors for early onset of catheter-related bloodstream infection in an intensive care unit in china: a retrospective study. Medical Science Monitor. 19(21), p.550-6.

Risk factors for early onset of catheter-related bloodstream infection [#ivteam](http://ctt.ec/T5Rl6+@ivteam)

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Abstract:

**Background:** Catheter-related bloodstream infection (CRBSI) is a life-threatening condition encountered in patients with long-term central venous catheter (CVC) indwelling. The objective was to investigate the clinical characteristics, treatment, and prognosis of CRBSI in the intensive care unit (ICU) in a Chinese center, as well as the risk factors for early CRBSI.

**Material and Methods:** A total of 73 CRBSI patients were retrospectively studied in relation to patients’ clinical and epidemiological data, microbiological culture, and treatment. Patients were treated at the Taizhou Hospital of Integrated Traditional Chinese and Western Medicine in Zhejiang (Zhejiang Wenlin, China) between January 2010 and December 2012.

**Results:** In this Chinese center, the most common pathogens were Gram-positive cocci, followed by Gram-negative bacilli and fungi. A high prevalence of antibiotic-resistant pathogens was detected, and a higher percentage of non-Candida albicans spp. was observed. Multivariate analysis showed that an acute physiology and chronic health evaluation II (APACHE II) score >20 and >3 types of underlying diseases were independent factors associated with CRBSI occurring within 14 days of CVC indwelling. Untimely CVC removal and/or inappropriate use of antibiotics led to significantly longer time to defervescence and time to negative conversion of blood culture (all  $P < 0.05$ ). **Conclusions:** In this Chinese center, Gram-positive bacteria are predominantly detected in CRBSI. APACHE II score >20 and the presence of >3 types of diseases were associated with earlier CRBSI onset. Timely removal of CVC and appropriate use of antibiotics resulted in improved outcomes.



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