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Abstract:

OBJECTIVE: The aim of this study was to evaluate the clinical characteristics and risk factors associated with mortality in cancer patients with bloodstream infections (BSI), analyzing multidrug resistant bacteria (MDRB).

METHODS: We conducted a prospective observational study at a cancer referral center from August 2016 to July 2017, which included all BSI.

RESULTS: 4,220 patients were tested with blood cultures; 496 were included. Mean age was 48 years. In 299 patients with solid tumors, secondary BSI and Central Line-Associated BSI (CLABSI) were the most common (55.9% and 31.8%, respectively). In 197 hematologic patients, primary and mucosal barrier injury (MBI) BSI, were the main type (38.6%). Gram-negative were the most frequent bacteria (72.8%), with *E. coli* occupying the first place (n=210, 42.3%), 48% were Extended-Spectrum Beta-Lactamase (ESBL) producers, and 1.8% were resistant to carbapenems. Mortality at day 30, was 22%, but reached 70% when patients did not receive an appropriate antimicrobial treatment. Multivariate analysis showed that progression or relapse of the oncologic disease, inappropriate antimicrobial treatment,

and having resistant bacteria were independently associated with 30-day mortality.

CONCLUSIONS: Emergence of MDR bacteria is an important healthcare problem worldwide. Patients with BSI, particularly those patients with MDR bacteria have a higher mortality risk.

Reference:

Islas-Muñoz, B., Volkow-Fernández, P., Ibanes-Gutiérrez, C., Villamar-Ramírez, A., Vilar-Compte, D. and Cornejo-Juárez, P. (2018) Bloodstream infections in cancer patients. Risk factors associated with mortality. *International Journal of Infectious Diseases*. April 9th. .

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