

## **We conducted a retrospective study to evaluate the epidemiologic profile and mortality of patients with solid tumors who have BSIs and were admitted to Mexico Hospital” Calvo-Lon et al (2017).**

Abstract:

**Purpose:** Bloodstream infections (BSIs) are an important cause of mortality in patients with solid tumors. We conducted a retrospective study to evaluate the epidemiologic profile and mortality of patients with solid tumors who have BSIs and were admitted to Mexico Hospital. This is the first study in Costa Rica and Central America describing the current epidemiologic situation.

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**Methods:** We analyzed the infectious disease database for BSIs in patients with solid tumors admitted to Mexico Hospital from January 2012 to December 2014. Epidemiology and mortality were obtained according to microorganism, antibiotic sensitivity, tumor type, and presence of central venous catheter (CVC). Descriptive statistics were used.

**Results:** A total of 164 BSIs were recorded, the median age was 58 years, 103 patients (63%) were males, and 128 cases of infection (78%) were the result of gram-negative bacilli (GNB). *Klebsiella pneumoniae* (21%), *Escherichia coli* (21%), and *Pseudomonas aeruginosa* (15%) were the most common microorganisms isolated. Gram-positive cocci (GPC) were found in 36 patients, with the most frequent microorganisms being *Staphylococcus aureus* (10%) and *Staphylococcus epidermidis* (6%). With respect to tumor type, BSIs were more frequent in the GI tract (57%) followed by head and neck (9%) and genitourinary tract (8%). Regarding antibiotic susceptibility, only 17% (GNB) expressed extended-spectrum beta-lactamase and 12% (GPC) had methicillin resistance. Patients with CVCs (n = 59) were colonized mainly by GNB (78%). Overall the mortality rate at 30 days was about 30%.

**Conclusion:** GNB are the most frequent cause of BSIs in solid tumors and in patients with CVCs. GI cancers had more BSIs than other sites. Mortality and antibiotic sensitivity

remained stable and acceptable during this observational period in this Latin American population.

Reference:

Calvo-Lon, J., Landaverde, D.U., Ramos-Esquivel, A. and Villalobos-Vindas, J.M. (2017) Epidemiology and Outcomes of Bloodstream Infections in Patients With Solid Tumors in a Central American Population at Mexico Hospital, San Jose, Costa Rica. *Journal of Global Oncology*. December 15th. .

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