

EV0622

ePoster Viewing

Epidemiology of nosocomial infections

Healthcare-associated infections by linezolid-resistant *Staphylococcus epidermidis* without previous treatment (2010-2014)

M.J. Zamora López¹, R. Tato Rodríguez¹, J. Martínez López¹, D.M. Guzmán Figueroa¹, P.M. Álvarez García¹, M.V. Pulián Morais¹,
M. García Campello¹

¹Hospital Pontevedra, Pontevedra, Spain

Introduction

Linezolid (LZD) is an effective drug for methicillin resistant *S.epidermidis* especially. Last years, resistance has been described related to long treatment or horizontal transmission.

Objective

To describe clinical, epidemiological and microbiological features of LZD resistant *S.epidermidis* cases during a five years period (2010-2014) in a tertiary university hospital.

Materials and Methods

We collected all *S. epidermidis* LZD-resistant in all type of biological specimens received from January 2010 to August 2014. A retrospective study from these patients was conducted. Clinical characteristics, microbiological and antibiotic treatment were recorded. Data were collected through the patients' clinical records and Laboratory Informatic System. Microbiological cultures were realized by standard procedures. Identification and determination of antibiotic susceptibility were performed using Phoenix Automated Microbiology System (BD Diagnostic Systems) and the Epsilon Test (BioMérieux). EUCAST breakpoints were applied (EUCAST 2014).

Results

A total of 32 (3.24%) from 1131 patients with *S.epidermidis* infections showed LZD resistant strains. The mean (SD) age was 61.69 (16.50) years and 65.63% of them were males. This bacteria was associated with different clinical infections: Catheter Associated Bacteremia 11/32 (34.38%), Primary Bacteremia 10/32 (31.25%), Surgical Soft Infection 7/32 (21.88%), Respiratory 2/32 (6.25%) and Urinary infection 2/32 (6.25%). 97,87% from all cases studied have healthcare associated infection being 55.32% critically ill patients. Only 11/32 (34.38%) patients received LZD prior to the isolation and the mean (SD) duration of treatment was 23 (11.35) days. Specific treatment was follow by 24/32 (75%) patients: vancomycin (VAN) (17/20), daptomycin (DAP) (3/20), fosfomicin (FOF) (1/20), teicoplanin (TEC) (1/20) and DAP-VAN association in 2/20. 95.75% were Oxacillin (OXA) resistant (CMI \geq 0,5 $\mu\text{g/ml}$). All of isolates were susceptible to DAP and VAN, while 2 of them showed resistant sensitivity to TEC (CMI \geq 4 $\mu\text{g/ml}$). LZD consume was improved like the annual resistance rate in our centre (Figure 1).

Conclusions:

In our centre *S epidermidis* LZD resistant isolates were mostly from healthcare associated infections being catheter associated bacteremia the most important. Use of this antibiotic in our center has increased in parallel, however not all patients with *S. epidermidis* LZD resistant isolates previously received the drug. All isolates were sensitive to DAP and VAN. LZD resistant emerged our hospital, probably from healthcare associated infection. The most likely explanation is that person to person spread of linezolid resistant *S epidermidis* led to skin colonization causing infection in critical patients.