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Poster Session VI

Miscellaneous of community pathogens and infections

PROGNOSTIC VALUE OF INTRA-OPERATIVE BILE CULTURES

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OBJECTIVES

Intra-operative bile cultures have been proposed as routine practice for patients undergoing biliary tract procedures, due to it would allow for early appropriate antibiotic use in case of infection and for adequate design of hospital-adjusted antibiotic prophylaxis. However, currently controversy exists about if the presence of bacteria in the bile has an impact on morbidity and mortality rate, and on incidence of postoperative infections such as acute cholecystitis, bacteraemia, wound infection or intra-abdominal abscess, and non infectious complications.

The aim of this study was to evaluate the role of isolation of resistant microorganism in terms of mortality or readmissions.

METHODS

We retrospectively reviewed the records of all patients with positive bile cultures admitted to Hospital Universitario Marqués de Valdecilla (Santander, Spain) from January to December 2011. Clinical, epidemiological and microbiological data and laboratory findings were analyzed by reviewing the medical charts. We consider as resistant microorganism the presence of ESBL-producing *Enterobacteriae*, AmpC-producing *Enterobacteriae* or *Enterococcus faecium*. The patients were followed for two years for readmissions.

RESULTS

Eighty-three patients (64 % men) were included. Mean age was 71 years (SD= 13 years). The most frequent diagnoses were acute cholecystitis (75%) and cholangitis (11%). Laparoscopic cholecystectomy was performed in 38 patients (46%), open cholecystectomy in 32 patients (38%) and percutaneous cholecystostomy in 6 patients (7%). One hundred and twenty one bile cultures were collected. The most frequent microorganisms isolated were *Escherichia coli* (31%, and 16% of them were ESBL-producing), *E. faecium* (13%) and *Klebsiella pneumoniae* (11%, and 7% of them were ESBL-producing). Seven cultures (5,5%) were positive for AmpC-producing microorganism (6 *Enterobacter cloacae* and 1 *Morganella morganii*). The initial antimicrobial agent was a carbapenem in 45 patients (55%), piperacillin-tazobactam in 17 (20%) and amoxicillin-clavulanic acid in 8 patients (10%). Seven patients died during admission (9%).

There were 22 readmissions (26%) during study period, and 16 of them (71%) were because of infections. Same microorganism than in intra-operative bile culture was isolated in 3 cases (14%), none of them ESBL-producing.

The presence of resistant microorganisms in bile cultures was not a statistically significant predictor of neither mortality nor readmissions.

CONCLUSIONS

This preliminary study shows that ESBL-producing *Enterobacteriae* or AmpC-producing

Enterobacteriae, or *E. faecium* are isolated in considerable number of bile cultures, but no correlation was found between its presence and mortality or readmission.