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 Session: Bacterial Infections
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C.perfringens isolated from blood culture and placental sample after the termination of a 29 gestational week pregnancy

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Background: *Clostridia* can be isolated from the genital tract of approximately 10% of women as part of the normal vaginal microflora. Although not common, postpartum and postabortion infections caused by clostridia can be severe. Clostridial uterine infections start as localized chorioamnionitis as a result of infection of the fetus and placental tissues. If not treated promptly the toxins produced by *Clostridia* during septicemia can result in severe disease and devastating clinical outcomes.

It's presented isolation of *C.perfringens* from blood culture and placental sample after the termination of a 29 gestational week pregnancy which diagnosed fetal omphalocele.

Methods: 34 years old, 29 gestational week pregnant women, was admitted to emergency service with abdominal pain and fever who has a history of having omphalocele fetus and premature membrane rupture. Cesarean section was performed because of pre diagnosis of chorioamnionitis. The death fetus was borned with a non-ruptured omphalocele sac. Peroperatively blood culture, urine culture and a sample of plasenta sent to the microbiology laboratory. Postoperatively due to the worsening of blood parameters the patient admitted to intensive care service with the prediagnosis of disseminated intravascular coagulation. The patient was treated with imipenem and doxycycline therapy. *C.perfringens* was isolated from blood culture and placental sample of patient who has neither an immunodeficiency nor a diagnosed previous disease.

Results: Identification of the bacteria was performed by automatic system (API 20A, bioMerieux). The bacteria was sensitive to penicilins so the therapy was not changed. All acute phase reactans were decreased in the seventh day of the therapy.

Conclusion: *C.perfringens* is rarely isolated from blood cultures. Significant risk factors associated with isolation of *Clostridia* from blood include hemodialysis, intestinal malignancy and inflammatory bowel disease. Anaerobic bacteria isolation from blood cultures is 1% in our hospital and we have isolated first time *C.perfringens* from blood culture for the last ten years. In this patient the cause of dissemination of *C.perfringens* in blood was thought as a trasmission from maternal bowel flora which then pass through the plasenta and omphalocele fetus as we know because of the thickened abdominal layers, fetus is sensitive to the infections.

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Implant-associated infections of the spine (IAIS): retain or not retain the device; that is the question

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Background: Implant-associated infections of the spine (IAIS) are relatively uncommon diseases and there is limited experience regard to the best therapeutic management.

The objective was to evaluate the clinical and microbiological characteristics of IAIS, particularly those treated with a conservative approach.

Methods: Retrospective cohort study of IAIS included in a database that prospectively recorded consecutives episodes (ep) of bone, joint and orthopedic implants-associated infections (BJOI). Statistical analysis: program SSPS, Chi square test. Univariate analysis was applied, considering statistically significant a $p \leq 0.05$.

Results: From April/1992 to January/2012, 78 ep of IAIS in 62 patients (over 1418 ep of BJOI; 5.5%) were analyzed. Mean age 47 yo (SD ± 19). Male: 61%. Comorbidities (diabetes, rheumatoid arthritis, malignancy, etc) 41%; 65 ep (83.3%) had postoperative origin. Clinical picture: pain (61%), fever (49%), sinus tract (12%), phlogosis (58%) and purulent discharge (55%); ESR > 50 (46%). Microbiology: gram-positive cocci 49% (37% *S. aureus*, 11% CNS, 8% *enterococcus* spp); gram-negative bacilli 28% (15% *Enterobacteriaceae*, 9% *Pseudomonas* spp); 25% were polymicrobial and 3% had negative cultures. Medical Treatment: the antibiotics more frequently used were 1st generation cephalosporins, glycopeptides, quinolones, cotrimoxazole, and rifampin (always combined with other antibiotics). Mean duration of antibiotic treatment: 32.13 weeks (IQR 25-75% = 12-35). Route of administration: oral 29%, parenteral 12%, sequential parenteral-oral 59%. Surgical treatment: 77/78 pts. Seventy ep (91%) were treated with debridement with implant retention and 7/77 ep (9%) no underwent any surgical management. In 16/77 ep (20%) the implant must be subsequently removed; 2 ep (2%) during antibiotic treatment (for treatment failure) and 14 ep (18%) after the end of antibiotic treatment (for relapse). Mean follow-up: 37 months (SD ± 31,9). Outcome: favorable (cure or improvement) 79%, relapse 18% and failure 2%. In the univariate analysis, age, clinical presentation, duration of antibiotic treatment and surgical treatment were unrelated with the outcome. Only *S. aureus* infection was associated with poor prognosis (clinical failure or relapse; $p = 0.029$).

Conclusion: A conservative management (retention of the implant) in IAIS represent an attractive and safe strategy in most of cases and could be considered as the initial approach of this difficult-to-treat infections.

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