Poster Presentations, Poster Session – Bacterial Infections

**PP-034** A comparative study on the serum pro-inflammatory cytokines levels in mothers with periodontitis and their newborns

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**Objectives:** This study compared the umbilical blood serum IL-1β, IL-6, TNF-α of the puerpera with periodontitis, analyzed the effect of periodontitis in the puerpera on levels of inflammatory cytokines in neonates and investigated the impact mechanism of periodontitis in the puerpera for fetal growth and development.

**Method:** 70 full-term birth mothers and their newborns without systemic diseases was selected, of which 40 had periodontitis and 30 were periodontally healthy. Using probing depth, clinical attachment loss, bleeding index and other indicators to compare the periodontitis incidence in healthy puerperas with that in puerperas with periodontitis. Venous blood samples of puerperas and umbilical cord blood before fetus out of placenta after delivery were collected. Levels of serum IL-1β, IL-6 and TNF-α were assayed by ELISA.

**Results:**
1. There was statistical significance between periodontitis group in PD, CAL, BI and the normal control group (P < 0.01).
2. Maternal peripheral blood, cord blood IL-1β, IL-6, TNF-α levels in periodontitis group was higher than the control group (P < 0.05).
3. Maternal peripheral blood IL-1β, IL-6, TNF-α levels was positively correlated with the level of fetal cord blood (P < 0.05).
4. The newborns’ 1 minute Apgar scores of mothers with periodontitis were lower than those of normal mothers (p < 0.05).

**Conclusion:**
1. For the first time confirmed in cord blood of newborns maternal periodontitis led to elevated levels of inflammatory cytokines, further confirmed that maternal periodontitis is an important source of intrauterine infection.
2. Apgar1 minute score observed that elevated levels of fetal inflammatory cytokines on fetal growth and development have an adverse effect.
3. Intrauterine infection caused by inflammatory cytokines affecting fetal growth may play an important role in fetal development.

**PP-035** Survey of procalcitonin and bacterial infectious diseases

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**Introduction:** Procalcitonin is prohormone of calcitonin and is made 116 amino acids. The normal value of procalcitonin is less than 0.5 ng/ml, that if this amount exceeds the infection is indicated. Increased amounts of procalcitonin associated to infection, especially bacterial infections.

**Methods:** In this study, 32 patients with liver cirrhosis and 16 healthy people who consistent age and sex with patient groups were evaluated. Serum PCT levels in these subjects was measured. PCT level was Measured by semi-quantitative method, using kits Braham company (Germany). Amount 100 μl of serum put in a special position on the cassette and after two minutes based on level of PCT in serum, purple color band appeared in comparison with standard values and so PCT levels were measured.

**Results:** Patient group included 23 males and nine females with mean age of 44.78 years and SD = 17.44 years, the control group included 11 males and five females with mean age of 45.75 years and SD = 15.5 years.

The statistical analysis showed that between patients and controls regarding age and gender were not significant different (P = 0.001), but in terms of PCT between patients and controls were significant differences (P < 0.05). In patients with liver cirrhosis under investigation, based on cause of cirrhosis, only was significantly different between groups of cirrhosis with hepatitis C patients to other causes of cirrhosis (P < 0.05).

**Discussion:** The positive rate of PCT in patients was much higher than the control group and there was significantly different. Since patients had no symptoms of infection only for endoscopy tests were hospitalized, so the PCT test showed that 78.1% of cirrhotic patients PCT were positive, whereas this ratio is 25% in the control group, this means that almost 80% of cirrhotic patients in present study probably were infected and should be done under treatments.

**PP-036** Effects of supplemental oxygen for prevention of wound infection after breast surgery

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**Objectives:** Some studies indicate that supplemental oxygen can be reducing incidence of surgical site infections (SSIs). In this study, we tried to evaluate the effects of supplemental 100% oxygen on SSI in patients undergoing breast surgery.

**Methods:** In a clinical double-blind study, 60 patients receiving standardized halothane anesthesia were randomly assigned to the following two groups: group 30 (30% oxygen in air) and group 100 (100% oxygen). SSI was assessed over the first 14 days after surgery in both the groups.

**Results:** There was a no significant difference between the two groups (SSI was 0% in group 100 versus 3.33% in group 30).

**Conclusion:** The results of this study showed no effect in the incidence of SSI following elective breast surgery in patients receiving 100% oxygen during the intraoperative period.

wounds to: ceftriaxone, amikacin, gentamicin, ciprofloxacin and tobramycin.

**Methods:** Antibiotic susceptibility test for mentioned antibiotics, were done by agar macro dilution method in Muller-Hinton agar according to CLSI advise.

**Results:** From 60 isolated strains of *P. aeruginosa*, the frequency of resistance to ceftriaxone, amikacin, gentamicin, ciprofloxacin and tobramycin were 88%, 93%, 90%, 94%, 90% and 95% respectively. In this study comparison between the curing pair pattern (ceftazidim, ciprofloxacin) and (ceftazidim, aminglycoside) on mening ful static relations were seen or oserved (P > 0.05). Although in first group a more sensitivity was abserved with the second group (16.7% to 11.7%).

**Conclusion:** According to this results and also on the drug resistance, side effects, and the eatable use of drugs suggested to use the pattern Ciprofloxacin-Ceftazidime for treatment the efectual to arise from *P. aeruginosa* in infected burn wounds.