

**P0408**

**Poster Session I**

**Emerging infectious diseases**

**Genitourinary brucellosis: results of the GONCA study**

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**Objectives:** The aim of Gonca study is to delineate the characteristics of genitourinary involvement in brucellosis by pooling the largest data in the literature.

**Methods:** The study included Brucellosis patients with genitourinary involvement from 34 centers between 2000 and 2013.

**Results:** Overall 390 patients with genitourinary brucellosis (352 males, 90.2%) were pooled in this study. The mean age of the patients was 39.66±14.94 years. The mean duration between the onset of symptoms and hospital admission was 15.9±19.9 days. Previous history of brucellosis was recorded in 29 cases with a mean of 16.7±14.3 months. Eighteen out of these 29 patients (62%) had proper treatment for previous brucellosis episode, thus the second attack was a relapse. The most frequent involved site was scrotal area (n=327, 83.8%) as epididymo-orchitis (n=204, 58%), orchitis (n=112, 31.8%), and epididymitis (n=11, 3.1%). In 110 patients there were other focal brucellar foci/focus. The positivities of serological tests were as follows: Rose Bengal test 91.6% (328/358), serum tube agglutination test (SAT) 94% (363/386), and coombs-SAT 92.9% (91/98). The positivity of the blood culture was 36.5% (91/249), bone marrow culture 63.6% (7/11), urine specimen culture 1.5% (3/201), genital discharge culture 5.9% (2/34). Overall 56 out of 103 strains isolated were typed as *Brucella melitensis*, and the rest was not further subtyped and reported as *Brucella* spp in the hospital records. The distribution of antibiotic combinations was as follows: Doxycycline and rifampicin (n=229, 63.6%), doxycycline, rifampicin and an aminoglycoside (n=46, 12.8%), doxycycline and an aminoglycoside (n=44, 12.2%), doxycycline, rifampicin and trimethoprim/sulfamethoxazole (n=13, 3.6%), ceftriaxone, doxycycline, rifampicin (n=17, 4.7%), doxycycline, rifampicin and ciprofloxacin (n=16, 4.4%), and others (n=25, 6.9%). Orchiectomy was performed in six patients, abscess drainage was performed in two (one was in the paravertebral area), and lumbar stabilization was established in one case.

Therapeutic failure was detected in six patients. After antibiotic modification all of them were cured. On the other hand, four cases relapsed after the end of antibiotic treatment, and infertility related to brucellosis persisted in one patient. Two out four cases relapsed had genitourinary brucellosis once again. When the patients with only genitourinary involvement as the single brucellar focus were taken into consideration (n=279), the mean length of hospital stay was 9.6±(SD)5.6 days for the doxycycline and rifampicin combination while it was 14.1±6.0 days for the doxycycline, rifampicin, and streptomycin regimen (Mann Whitney U test: P=0.001). Six out of 38 female patients were pregnant (6-32 months of gestation), two of whom ended with spontaneous abortion, one with preterm labor, and three with term birth.

**Conclusions:** Genitourinary involvement is mainly seen in males. Although the disease is curable with suitable antibiotics, it may result in frequent morbidity