

17. COMPARATIVE CLINICAL ASPECTS OF UNILATERAL VS BILATERAL ACUTE MUMPS ORCHITES

Author: Ion Ernu

Co-author: Iurii Arian

Scientific adviser: Ion Dumbrăveanu, PhD, Associate Professor, Department of Urology and Surgical Nephrology, *Nicolae Testemitanu* State University of Medicine and Pharmacy of the Republic of Moldova.

Introduction. Mumps is a contagious disease worldwide caused by the Mumps virus (MuV). In addition to the typical painful parotids in infected men, orchitis is the most common extra-salivary inflammation and an important etiological factor of male infertility caused by mumps. The data about evolution of the clinical manifestations in the acute phase of mumps orchitis is limited, thus making it more difficult to define the pathological mechanisms with a significant impact on post-mumps testicular dysfunction. Is not clear which of the unilateral or bilateral mumps orchitis disrupt the testicular function, that is why this study is focused on comparative data from mumps orchitis clinical evolution.

Aim of study. Although mumps is a vaccine-preventable disease, sporadic outbreaks have occurred worldwide, even in highly vaccinated populations. In the Republic of Moldova vaccination of children 12 months old against Mumps was started in 1983. Second vaccination at 7 years was introduced in 2000. At the end of 2007 – beginning of 2008 it was an epidemic with 29,357 of mumps infections, 2/3 of infected were vaccinated with 1 dose, 1/3 – unknown status, just 4% with known 2 dosages.

Methods and materials. A retrospective record review of the case files of 203 patients (15 to 44 years old; mean age 20 years) with unilateral (148 patients) and bilateral mumps orchites (55 patients) admitted to infectious diseases department between end of 2007 and 2008 was done. The following clinical manifestations were analyzed: testicular swelling, testicular pain, scrotal hyperemia and fever. The data on the time of onset and duration of maintenance of symptoms in unilateral and bilateral mumps orchitis were compared.

Results. Testicular swelling was reported in the first 3 days, first 10 days and after 10 days of disease in 13 patients (23.63%), 50 patients (90.9%) and 5 patients (9.09%) respectively in those with bilateral orchites vs 34 patients (23.28%), 129 patients (88.35%) and 17 patients (11.64%) respectively in those with unilateral orchites (2 patients did not present testicular swelling). Testicular pain at 3, 10 and after 10 days of parotitis: 9 patients (16.36%), 50 patients (90.9%) and 5 patients (9.09%) respectively in bilateral vs 32 patients (22.53%), 124 patients (87.32%) and 18 patients (12.67%) respectively in unilateral (in unilateral group 6 patients - no testicular swelling). Scrotal hyperemia has been occurred in the first 7 days in 39 patients (70.9%) with bilateral vs 85 patients (60.71%) in unilateral (8 patients with no scrotal hyperemia in unilateral group). Fever at 3, 10 and after 10 days of parotitis: 29 patients (59.18%), 47 patients (95.91%) and 2 patients (4.08%) respectively in bilateral (6 patients – with no fever) vs 76 patients (55.07%), 128 patients (92.75%) and 10 patients (7.24%) respectively in unilateral (10 patients – with no fever).

Conclusion. Testicular swelling, pain and scrotal hyperemia have no significant differences on the time of onset, with an average duration of symptoms of 8.5 days in bilateral orchites vs 7.2 in unilateral mumps orchites. The time of onset of fever was found in the first 3 days of parotitis in more than a half of the patients, with an average duration of 3.5 days in both groups.