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Poster Session V

Immunology, vaccination and host defences

DESCRIPTIVE STUDY OF THE COHORT OF PATIENTS DIAGNOSED WITH BCGITIS AND ANALYSIS OF RISK FACTORS, IN A TERTIARY HOSPITAL OF NORTHERN SPAIN, FROM 2003 TO 2013.

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Objectives: Intravesical instillation of Bacillus Calmette-Guerin (BCG) is used to treat superficial bladder cancer. However, complications do occur (BCGitis), including localized or systemic BCG infections. Our objectives are to characterize the group of patients where complications occur and define risk factors for the development of BCGitis. **Methods:** Historical and prospective cohort study of patients diagnosed with BCGitis from 1st of January, 2003 to 31st of October, 2013, in the University Hospital M. Valdecilla (Santander-Spain). We reviewed clinical features, treatments and outcome of all BCGitis cases reported in the literature between January 1, 1983, and September 30, 2013, to provide a current characterization of the syndrome. **Results:** There are a total of 47 patients diagnosed with BCGitis, 89.4% are men. Indications for starting treatment with BCG are bladder cancer (53.2%) and recurrent bladder cancer (46.8%). Fourteen patients were smokers, 13 had no bladder tumor (6.2% have larynx cancer), 8 diabetes and 5 were COPD. Before instillation of BCG, positive mantoux test was found in 9 (19.1%) and was not performed in 2.1%. There were antecedents of tuberculous disease in 4.3% patients (all of them pulmonary infection) and it was unknown in 23.4%. Quimioprofilaxis with quinolones was administered to 44 (93.6%) patients while isoniazide was used on 1 (2.1%) patient during 4 weeks. Instillations with BCG was administered weekly in 78.7%, biweekly in 6.4%, each 21 days in 12.8% and monthly in 2.1%. Number of intravesical instillations was 5.7 ± 1.2. Complications occur at 8.4 ± 1.9 months from starting BCG instillations, happening in the first six months (71.9%) and 12.8% from the first year. Clinical features recorded were: Fever (18.9% patients), arthritis in 14.7%, pulmonary tuberculosis in 6.3% patients, dysuria in 10.5% and granulomatous prostatitis in 4.2%. Polyarthrititis was found in 14.9% patients: bilateral knee arthritis in 71.5% and associated with ankle arthritis in 10.5%, elbows arthritis in 4.2% and wrists in 2.1%. Prolonged treatment with isoniazide and rifampin was administered during >6 months in 47.4% cases. Three patients received concomitant BCG and antituberculous treatment during 3-6 months, 1 in first two months and 1 in first month. Instillations with BCG was cancelled in 32 (68.1%) patients, and in 2.1% of them Mitomycin was administered during 6 months, developing polyarthrititis of ankle and wrist. There were not deaths during the follow-up. In the multivariate analysis, >6 sessions of instillations of BCGs is a strong risk factor for developing BCGitis (OR 13.5, p=0.009). **Conclusions:** Most of the patients in our series have associated morbidities. Prophylaxis with quinolones in the previous month to the BCG instillation shows to be useful to prevent complications in our series. >6 instillations with BCG is a strong risk factor for BCGitis (p=0.009). Most frequent complications were fever, pulmonary tuberculosis and polyarthrititis (overall with both knees involvement) and occur in the first semester after instillation. Prolonged tuberculostatic treatment was administered during >6 months in almost 50% of cases.