

# DESCRIPTIVE STUDY OF THE COHORT OF PATIENTS DIAGNOSED WITH BCGITIS AND ANALYSIS OF RISK FACTORS, IN A TERTIARY HOSPITAL IN 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 occurs and define risk factors for the development of BCGitis

## RESULTS

A total of 47 patients were diagnosed with BCGitis in the University Hospital Marqués de Valdecilla, from 1<sup>st</sup> of January of 2003 to 31<sup>st</sup> of October of 2013

Epidemiological characteristics of patients	% (N=47)
Men	89.4
Indications of treatment	
· Bladder cancer	53.2
· Recurrent bladder cancer	46.8
Smoking habit	29.8
No bladder tumor	27.6
Positive Mantoux previous to instillation	19.1
Diabetes	17
Chronic Obstructive Pulmonary Disease	10,6
Antecedents of Tuberculous Disease	4,3

### Quimioprofilaxis:

- Quinolones were administered to 44 (93.6%) patients.
- Isoniazide was used in 1 (2.1%) patient during 4 weeks.

### Instillations with BCG were administered:

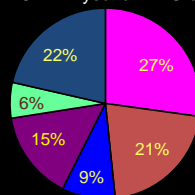
- Weekly (78.7%)
- Biweekly (6.4%)
- Each 21 days (12.8%)
- Monthly (2.1%)

Mean number of sessions of intravesical instillations was 5.7 (SD 1.2)

Complications occurs at 8.4+/-1.9 months from starting BCG instillations.

They happened in the first semester (71.9%), 15,3% in the second semester and 12.8% from the first year.

■ Fever ■ Arthritis ■ Pulmonary TBC ■ Dysuria ■ Granulomatous prostatitis ■ Poliartthritis



## METHODS

Historical and prospective cohort study of all the patients diagnosed with BCGitis from 1<sup>st</sup> of January of 2003 to 31<sup>st</sup> of October of 2013, in the University Hospital Marqués de Valdecilla (Cantabria – Spain). We reviewed clinical features, treatments and outcome of all BCGitis cases reported in the literature between 1<sup>st</sup> of January of 1983, and 30<sup>th</sup> of September of 2013, to provide a current characterization of the syndrome.

Treatment with isoniazide and rifampin was administered during >6 months in 47.4% cases.

Three patients received concomitant BCG and antituberculous treatment during the 3<sup>rd</sup> to 6<sup>th</sup> months of starting antituberculous treatment, 1 in first two months and 1 in first month respectively.

Instillations with BCG were cancelled in 32 (68.1%) patients, and in 2.1% of them, Mitomycin was administered during 6 months, developing polyarthritis of ankle and wrist. There were not deaths recorded during the follow-up

The multivariate analysis shows that receiving more than 6 sessions of instillations of BCGs is a strong risk factor for BCGitis (OR=13.5, p=0.009)

## CONCLUSIONS

Most of the patients in our serie have associated morbidities. Prophylaxis with quinolones in the previous month to the BCG instillation shows be useful to prevent complications in our serie.>6 instillations with BCG is a strong risk factor for BCGitis (p=0.009). Most frequent complications were fever, pulmonary tuberculosis and poliartthritis (overall with both knees involvement) and mostly occur in the first semester after instillation. Prolonged tuberculostatic treatment was administered during>6 months in almost 50% of cases of BCGitis.

## REFERENCES

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