



AB153. SOH22ABS134. Disseminated mycobacterium bovis infection post bacillus Calmette-Guérin (BCG) immunotherapy for bladder cancer: a case report and literature review

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Background: Bladder cancer (BC) accounts for 3% of global cancer incidence, ranking 11th overall. It accounts for 2.1% of cancer deaths, ranking 14th overall. Intravesical bacillus Calmette-Guérin (BCG) immunotherapy has been shown to improve progression free survival of non-muscle invasive bladder cancer (NMIBC). Disseminated mycobacterium bovis infection 'BCGosis' post BCG immunotherapy is a rare but recognised complication.

Methods: Our case is of a 75-year-old male who presented with sepsis following intravesical BCG earlier that day. The patient was treated empirically as urosepsis but did not respond to antibiotic therapy. CT-TAP to assess for alternative sites of disease showed numerous small intrapulmonary nodules, with bronchopulmonary lymphadenopathy and possible miliary type pattern. Bronchoscopy revealed no abnormalities but a transbronchial lymph node biopsy revealed non-caseous granulomatous inflammation with giant cells. The pathology report provided granulomatous inflammation as a complication of intravesical BCG immunotherapy as the most likely differential. After extensive multidisciplinary team (MDT) involvement the patient was commenced on rifampicin, isoniazid, pyridoxine, ethambutol. The patient responded well to initial management with cessation of the pyrexia within 48 hours of commencement. The patient then had 3 months of anti-tuberculosis therapy and remained well. A follow up cystoscopy revealed no recurrence of BC.

Results: A recent systematic review detailed 271 case reports and case series of systemic BCG infection post immunotherapy for BC involving a total of 307 patients. A Danish retrospective cohort study revealed an incidence of 1% (n=66) of systemic BCG infection from 6,752 patients over a 15-year period. One case series reported incidence rates of disseminated BCG infection in 1.7% (n=7) from a cohort of 418 patients with another showing systemic infection in 4.3% (n=11) from a cohort of 256.

Conclusions: While the exact incidence isn't clear from the current data, we believe that BCGosis as a complication of intravesical immunotherapy for bladder TCC is a clinical entity that clinicians should be aware of.

Keywords: BCGosis; disseminated mycobacterium tuberculosis; intra-vesical bacillus Calmette-Guérin immunotherapy (intra-vesical BCG immunotherapy); bladder TCC; complication

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Footnote

Conflicts of Interest: The authors have no conflicts of interest to declare.

Ethical Statement: The authors are accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

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