

## Recurrent Prostate Carcinoma presenting with Multiple Lung Metastases and Normal Serum PSA Level

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Prostate-specific antigen (PSA) is a glycoprotein derived from prostatic ductal and acinar epithelial cells and the most commonly used tumor marker for prostate cancer, in the monitoring of recurrence as well as in diagnosis. We report a case of a 76-year-old patient with recurrent prostate cancer who underwent radical prostatectomy and presented isolated hematogenous pulmonary metastases with normal serum PSA 5 years after surgery. Immunohistochemical study for the transbronchial lung biopsy specimen revealed the tumor cells positive for PSA and PAP (prostate acid phosphatase). After 2 months of hormonal therapy including anti-androgen and gonadotropin releasing hormone agonist, the multiple metastatic nodules showed nearly complete regression. We conclude that metastases of prostate adenocarcinoma may occur despite normal serum PSA level, and if clinically warranted, the immunohistochemical staining or other serologic marker for the prostate adenocarcinoma should be considered in the evaluation of metastatic carcinoma of unknown primary in male although the serum PSA is not elevated.

## Characteristics of Clostridium difficile Ribotype 078

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**Objectives:** The concern for PCR ribotype 078 strain of Clostridium difficile has recently risen worldwide with the epidemics of another hypervirulent PCP ribotype 027 (NAP1/BI/027) strain in North America and Europe, because of 078 strain's increased prevalence and hypervirulence in humans. We evaluate the clinical overview of C. difficile infection (CDI) caused by 078 strain in comparison with other ribotypes except 027 strain in South Korea. **Methods:** This retrospective study was conducted at the Severance Hospital, a tertiary care University-affiliated facility in Seoul, South Korea. We collected total 20 CDI cases by 078 strain (case group) from May 2001 to December 2011. The 38 CDI cases by other non-hypervirulent ribotype including 017, 018 and 014 strains (control group) from December 2011 to May 2012 in same hospital were retrospectively retrieved from the data of clinical microbiology department. The data about clinical symptom and laboratory findings at the time of CDI diagnosis were collected by medical record review. **Results:** The mean temperature in case group was significantly higher than that in control group (37.3±1.3 vs. 37.0±0.5,  $p=0.005$ ). The median CDI severity score was significantly higher in case group than that in other control group (2 vs. 1,  $p=0.019$ ). Invasive procedure during current admission was more common in control group than case group (94.7% vs. 75.0%,  $p=0.041$ ). The antipseudomonal penicillins during last 3 months from CDI diagnosis were more frequently used in control group than case group (52.6% vs. 20%,  $p=0.016$ ). In underlying disease analysis, hematologic malignancy were more common in case group than control group (35% vs. 2.6%,  $p=0.002$ ). In multivariate logistic regression analysis, temperature (OR 7.36,  $p=0.011$ ) and hematologic malignancy (OR 33.07,  $p=0.015$ ) were independent clinical factors associated with CDI by ribotype 078 strain. **Conclusion:** CDI by ribotype 078 has more severe than CDI by other ribotypes except 027 strain and occurs more frequently in patients with hematologic malignancy.