Serum creatinine for differentiating traumatic intraperitoneal and extraperitoneal bladder perforation

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Purpose:
This study aims to determinate if serum creatinine alterations may serve to differentiate the traumatic bladder perforation to be either intraperitoneal or extraperitoneal.

Materials and Methods:
Forty patients treated for bladder perforation between 2007 and 2014 in TSGH. Patients were divided into three groups: intraperitoneal bladder perforation (IBP), extraperitoneal bladder perforation (EBP) groups and iatrogenic intraperitoneal bladder perforation(IIBP). The subgroups were compared with others with change of serum concentrations of urea, creatinine after bladder repair.

Results:
There were no significant creatinine change in the EBP and IIBP groups, whereas obvious reduction of serum creatinine, urea were noted in IBP group regardless of presentation time.

Conclusion:
We propose that patients presenting with IBP are more likely to present with significantly higher levels of creatinine and immediate surgical intervention can correct azotemia. Creatinine alterations can be a predictor to differentiate traumatic IBP and EBP.