

## 인공방광대체술 후 발생한 대사성 산증 분석

이화여자대학교 의과대학 내과학교실

이신아, 정현연, 김승정, 강덕희, 최규복, 류동열

### Time-related Development of Metabolic Acidosis in Neobladder Patients

Shina Lee, Hyun Yon Jung, Seung-Jung Kim, Duk-Hee Kang, Kyu Bok Choi, Dong-Ryeol Ryu

Department of Internal Medicine, School of Medicine, Ewha Womans University

**Background:** It has been well known that metabolic acidosis development in neobladder patients. However, little is investigated that the factor affect metabolic acidosis. We aimed to investigate the risk factor may affect on development of metabolic acidosis after neobladder replacement with intestinal segment.

**Methods:** This study retrospectively analyzed 194 patients underwent neobladder replacement using intestinal segment, referred in a single center between 2005 and 2014. Acidosis and nonacidosis groups were compared for biologic data using multiple logistic regression analysis. A subgroup of patients according to time of metabolic acidosis occurrence was further analyzed in order to characterize predictors for metabolic acidosis.

**Results:** Metabolic acidosis was encountered in 78.4% of patients with neobladder during follow up period. In logistic regression analysis, pre operative total CO<sub>2</sub> was related with development of metabolic acidosis (OR=0.517; 95% CI 0.365 to 0.731; p<0.001) with significant difference in pre operative total CO<sub>2</sub> between the patients with or without metabolic acidosis (26.6±1.84 in patients without metabolic acidosis; 25.38±1.88 in patients with metabolic acidosis, p<0.001). In the subgroup analysis, patients were divided into 3 groups; patients with metabolic acidosis at post operative day 1; within a week; after a week. Female and operation time were significant factor for metabolic acidosis developed at post operative day 1 (OR=5.436, 95% CI 1.407 to 20.995, p=0.014 in female; OR=1.513, 95% CI 1.123 to 2.038, p=0.006 per 1hour of operation time). Pre operative total CO<sub>2</sub> was significantly related to metabolic acidosis developed within a week after neobladder replacement (OR=0.637, 95% CI 0.433 to 0.937, p=0.022). Serum sodium and potassium concentration were significant for metabolic acidosis developed after a week from operation (OR=0.637, 95% CI 0.421 to 0.965, p=0.33 for serum sodium concentration; OR=0.131, 95% CI 0.021 to 0.818, p=0.030 for serum potassium concentration).

**Conclusion:** Our study showed pre operative electrolytes including total CO<sub>2</sub> and operation time were related to development of metabolic acidosis after neobladder replacement. Therefore, pre operative care should be emphasized for prevention of metabolic acidosis in patient with neobladder.

**Key Words:** 대사성 산증, 방광, 인공방광대체술

Acidosis, Urinary diversion, Urinary bladder