



Comparative analysis of bilirubin in correlation to albumin between nephrotic syndrome patients and postoperative gastroparesis syndrome patients

M.H. Song, G.J. Zhu, L. Ma, G.L. Chen, D. Yang, J.H. Gong, Y.X. Xie, Y. Yan and M.C. Wang

Integrated Chinese and Western Medicine Treatment of Renal Disease Centre, Beidaihe Sanatorium of Beijing Military Area Command, Chinese PLA, Qinhuangdao, China

Corresponding author: L. Ma
E-mail: mhdccn@126.com

Genet. Mol. Res. 13 (4): 9403-9411 (2014)
Received June 13, 2013
Accepted November 1, 2013
Published February 14, 2014
DOI <http://dx.doi.org/10.4238/2014.February.14.13>

ABSTRACT. This study aimed to disclose the potential causality of low bilirubin in patients with nephrotic syndrome (NS). Correlation analysis was carried out on total bilirubin (TBIL) to serum albumin (ALB), urine protein (Upr), and urinary microalbumin/creatinine (Umalb/cr) for three groups in a case-control study. $P < 0.001$ was observed for TBIL, ALB, Umalb/cr, and Upr between the NS and chronic nephritis (CN) groups, and P values of 0.0001, 1.000, 0.0001, and 0.0001 were observed for TBIL, ALB, Umalb/cr, and Upr, respectively, between the postoperative gastroparesis (PGS) and CN groups. The values of r and P in correlation to TBIL were 0.549 and 0.000 for ALB, -0.405 and 0.000 for Umalb/cr, and -0.448 and 0.000 for Upr in the NS group; -0.007 and 0.959 for ALB, 0.213 and 0.091 for Umalb/cr, and -0.082 and 0.519 for Upr in the PGS group; and 0.509 and 0.000 for ALB, -0.431 and 0.000 for Umalb/cr, and -0.362 and 0.002 for Upr in the CN group. A probable

causality is implied between the low level of blood bilirubin and its loss in urine in NS patients. This conclusion may provide a theoretical basis for the feasibility of therapies against oxidative stress in NS patients.

Key words: Bilirubin; Nephrotic syndrome; Chronic nephritis; Urine protein; Albumin