

## 만성콩팥병 유무에 따른 신이식 환자에서 노인영양지표는 의미있는 영양인자이다

고신대학교 의과대학 내과학교실<sup>1</sup>, 고신대학교 의과대학 비뇨기과교실<sup>2</sup>

임학<sup>1</sup>, 양정욱<sup>1</sup>, 강경훈<sup>1</sup>, 김예나<sup>1</sup>, 신호식<sup>1</sup>, 정연순<sup>1</sup>, 류현열<sup>2</sup>

### Geriatric Nutritional Risk Index may be a Significant Nutritional Factor in Renal Transplantation Patients according to the Presence or Absence of Chronic Kidney Disease

Hark Rim<sup>1</sup>, Joung Wook Yang<sup>1</sup>, Gyoung-Hoon Kang<sup>1</sup>, Ye Na Kim<sup>1</sup>  
Ho Sik Shin<sup>1</sup>, Yeon Soon Jung<sup>1</sup>, Hyun Yul Rhew<sup>2</sup>

Department of Internal Medicine<sup>1</sup>, and Urology<sup>2</sup>, Kosin University College of Medicine

**Background:** Evaluation of nutritional status is essential clinical procedures for managing renal transplantation patients, especially in status of chronic kidney disease (CKD). However, no standard method for assessing the nutritional status in renal transplantation patients with CKD exists. The GNRI is a very simple and objective method to assess nutritional condition, using only three objective parameters: body weight, height and serum albumin values.

**Methods:** We examined the GNRI scores of 184 renal transplantation patients (50.2±11.3 years; 115 men and 69 women). The GNRI is calculated based on the serum albumin level and total lymphocyte count and uses the following equation:  $GNRI = [14.89 \times \text{albumin (g/dL)}] + [41.7 \times (\text{weight/ideal body weight})]$ . Logistic regression analysis was performed for predicting malnutrition in renal transplantation patients.

**Results:** The average GNRI value was 104.8±10.6, and GNRI values were normally distributed. According to logistic regression for predicting malnutrition, serum albumin and CKD predicted malnutrition in renal transplantation patients.

**Conclusions:** These results suggest that GNRI may be a significant nutritional marker in renal transplantation patients. The simple GNRI method is a clinically useful marker for the assessment of nutritional status in renal transplantation patients.

**Key Words:** 노인영양지표, 신이식, 영양실조

GNRI, Renal transplantation, Malnutrition

**Table 3. Logistic regression for predicting malnutrition**

Variable	OR (95% CI)	P
Age > 60 years	1.422 (0.522-3.870)	0.491
Male	1.072 (0.442-2.602)	0.877
Diabetes Mellitus	0.572 (0.137-2.393)	0.445
Chronic Kidney Disease	2.939 (1.224-7.057)	0.016
Duration after kidney transplantation (months) > 100	0.775 (0.317-1.894)	0.576
Serum Albumin < 3.5 g/dL	10.218 (2.479-42.114)	0.001