

S-C21

투석 시작환자에서 혈중 갈렉틴-3 농도와 이완기 심기능 장애의 관련성

가톨릭의과대학교 내과학교실 신장내과

김성준, 윤혜은, 정성진, 양철우, 김용수, 장윤식, 신석준

Increased Serum galectin-3 Level Shows Diastolic Dysfunction in Incidental Dialysis Patients

Sung Jun Kim, Hye Eun Yoon, Sungjin Chung, Chul Woo Yang
Yong-Soo Kim, Yoon Sik Chang, Seok Joon Shin

Division of Nephrology, Department of Internal Medicine, College of Medicine,
The Catholic University of Korea

Objective: Galectin-3 is a recently developed biomarker associated with fibrosis and inflammation, and it may play a role in cardiac remodeling in heart failure. However the clinical significance of this biomarkers is less determined in end-stage renal disease (ESRD) patients. This study was to evaluate the association of predialysis serum galectin-3 levels with echocardiographic markers in ESRD patients.

Method: Serum Galectin-3 albumin, CRP, iPTH levels were obtained from predialysis blood samples of 112 incidental dialysis patients. Echocardiographic parameters included left ventricular mass index (LVMI) and ejection fraction, ratio of peak early transmitral flow velocity to peak early diastolic mitral annular velocity (E/e' ratio), ratio of peak early transmitral flow velocity to peak late transmitral flow velocity (E/A ratio), and mitral valve-deceleration time (DT).

Results: A direct correlation was found between galectin-3 and E/e' ratio ($r=0.209$, $p=0.028$). A negative correlation was found between galectin-3 and Left ventricular ejection fraction ($r=-0.198$, $p=0.036$). In the multivariate linear regression analysis, the galectin-3 was independently positive associated with E/e'.

Conclusions: Serum galectin-3 level is associated with diastolic dysfunction in incidental dialysis patient.

Key Words: 갈렉틴-3, 말기신부전, 이완기 심부전
Galectin-3, End stage renal disease, Diastolic dysfunction

Determinants of E/E'

Marker	Univariate analysis		Multivariate analysis	
	r	P	β-coefficient	P
Age	0.182	0.047*		
BMI	0.136	0.156		
Hb	-0.151	0.099		
Albumin	-0.198	0.030*	-2.549	0.004*
CRP	0.279	0.002*		
Cr	-0.078	0.394		
Ca	0.077	0.403		
iPTH	-0.042	0.650		
BNP	0.292	0.028*		
Trop-T	0.146	0.269		
Galectin-3	0.209	0.028*	0.365	0.019*

