

عنوان مقاله:

Ischemia-Modified Albumin, Creatinine, And Paraoxonase-1 Levels in Serum of Patients Undergoing Intravenous Contrast-Enhanced Computed Tomography and Its Association with Contrast-Induced Nephropathy

محل انتشار:

مجله گزارش های بیوشیمی و زیست شناسی مولکولی، دوره 8، شماره 1 (سال: 1398)

تعداد صفحات اصل مقاله: 7

نویسندگان:

.Chanda Jha - *Department of Biochemistry, Kasturba Medical College, Manipal University, Manipal, India*

.Shobha Ullas Kamath - *Department of Biochemistry, Kasturba Medical College, Manipal University, Manipal, India*

.Sambit Dash - *Department of Biochemistry, Melaka Manipal Medical College, Manipal University, Manipal, India*

.Ravindra Prabhu Attur - *Department of Nephrology, Kasturba Hospital, Manipal, India*

.Lingadakai Ramachandra - *Department of Surgery, Kasturba Hospital, Manipal, India*

.Rajgopal Shenoy Kallya - *Department of Surgery, Kasturba Hospital, Manipal, India*

خلاصه مقاله:

Background: Following contrast-enhanced computed tomography (CECT) contrast-induced nephropathy (CIN) may occur in patients with renal insufficiency or diabetes. Creatinine, the most common marker of CIN, may not be an accurate measure of damage and is affected by many non-renal factors. Our aim was to evaluate ischemia-modified albumin (IMA) as an early CIN marker and correlate it with paraoxonase-1 (PON-1) and creatinine before and after CECT. Methods: Forty-eight adult patients scheduled for intravenous CECT, regardless of indication or body region for CECT, were included in this prospective study. Venous blood samples were obtained 12-24 hours before and after contrast media (CM) administration. Ischemia-modified albumin and PON-1 were estimated using methods described by Bar-Or et al. and Dantoine et.al., respectively. Creatinine was estimated on an automated analyzer. Results: Significant differences in IMA ($P < 0.001$) and PON-1 ($P < 0.001$) levels were found between pre- and post-CECT samples, while the difference for creatinine was not significant ($p = 0.073$). No correlation was found between IMA and PON-1 or IMA and creatinine in either the pre- or post-CECT samples. Conclusions: After CM administration patients are subjected to oxidative stress and/or ischemia, as revealed by elevated IMA and decreased PON-1 levels; however, creatinine levels, most commonly estimated to assess reduced renal function, did not reflect the condition accurately. IMA may be a sensitive marker for CIN but further studies are required to confirm its usefulness

کلمات کلیدی:

Contrast media (CM), Contrast-enhanced computed tomography (CECT), Contrast-induced nephropathy (CIN), (Creatinine, Ischemia-modified albumin (IMA), Paraoxonase-1 (PON-1)

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/1141949>

