

Is Urinary Beta-2 Microglobulin a Good Predictive Marker in Children With Pyelonephritis?

Behnam Sobouti^{1,*}, Yaser Ghavami²

¹ Ali- Asghar Hospital, Tehran University of Medical Sciences, Tehran, IR Iran

² Burn Research Center, Tehran University of Medical Sciences, Tehran, IR Iran

* Corresponding author: Behnam Sobouti, Ali- Asghar Hospital, Tehran University of Medical Sciences, Tehran, IR Iran. Tel.: +98-9111531822, Fax: +98-2122220063, E-mail: bsobooti@tums.ac.ir

Keywords: Beta 2-Microglobulin; Pyelonephritis

Dear Editor,

Regarding recently published article on urinary beta-2 microglobulin (β 2MG) as a prognostic marker in children with pyelonephritis, some issues should be considered (1). β 2MG is a small globular peptide with a molecular weight of 11800 Dalton which can be found on the surface of many cells. It consists of 100 amino acids with a disulfide-linked loop between amino acid 25 and 81; and its tertiary structure is homologous to the CH3-IgG domain. β 2MG passes freely through the glomerular membrane. Thereafter it is reabsorbed to an amount of maximum 99.9% by the proximal tubules (2). In aforementioned interesting article, the relation between urinary β 2M to Creatinine ratio and its effect on kidney damage may not be an incidental finding. Although it is possible to apply β 2M as a prognostic factor in patients with pyelonephritis, but exclusion criteria for patients should be extended more than mentioned. Other contributing factors in increased β 2M are infections (such as CMV and HIV), malignancies (i.e. multiple myeloma), exposure to heavy metals (Mercury, Cadmium), kidney

transplant, amyloidosis and drugs (such as Lithium, Cyclosporine, Cisplatin, Aminoglycosides). These issues should be taken into account and are considered in the exclusion criteria (3-6).

Authors' Contribution

None declared.

Financial Disclosure

None declared.

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►Article type: Letter; Received: 01 Jan 2013, Accepted: 07 Jan 2013; DOI: 10.5812/pedinfect.10074

►Please cite this paper as:

Sobouti B, Ghavami Y. Is Urinary Beta-2 Microglobulin a Good Predictive Marker in Children With Pyelonephritis? *Arch Pediatr Infect Dis.* 2013;**1**(2): 105-106. DOI: 10.5812/pedinfect.10074

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