

 Current Issue

 Browse Issues

 Search



 About this Journal

 Instruction to Authors

 Online Submission

 Subscription

 Contact Us



 RSS Feed


## Acta Medica Iranica

2009;47(4) : 24-28

### Original Article

#### Effects of vitamin E administration on APACHE II Score in ARDS patients

Hajimahmoodi M., Mojtahedzadeh M., GhaffarNatanzi N., Sadrai S., Sadeghi N., Najafi A., Khajavi MR, Hadadi A., Oveisi M-R, Kanani M

 Corresponding Author:

Mojtahedzadeh M

Received: July 2,2008

Accept : December 10,2008

Available online: March 14,2009

### Abstract:

#### ABSTRACT

*Background and purpose of the study:* The acute respiratory distress syndrome (ARDS) is a common clinical disorder caused by injury to the alveolar epithelial and endothelial barriers of lung. In ARDS patients, oxidative stress is increased and plasma antioxidant levels are reduced. Vitamin E has an important role in antioxidant defense mechanisms. In this study the effect of vitamin E on decrease of APACHE II score in ARDS patients was investigated.

*Materials and methods:* Twenty patients [mean (SE): age = 51.2 ± 6.41 years] with ARDS were enrolled. After diagnosis based on inclusion and exclusion criteria, ten patients as treatment group received 600 IU vitamin E daily intramuscularly. Control group received normal saline as placebo. Plasma samples and Acute Physiology and Chronic Health Evaluation (APACHE) II score were obtained before administration, 4hrs and 12hrs after each intervention and repeated three days for each patient. Results were analyzed by use of an SPSS software package with a repeated-measures analysis of variance (ANOVA).

*Results:* Significant changes were observed in APACHE II score from first to seventh measurement (p=0.0001) in treatment group, but vitamin E concentration altered significantly in only first to seventh measurement (p= 0.019).

*Conclusion:* From the results of this study, it seems that the use of vitamin E as a lipid-soluble antioxidant along with other supportive measures is beneficial in decreasing APACHE II score in ARDS patients.

### Keywords:

Acute respiratory distress syndrome, Vitamin E, APACHE II score, Oxidative stress

TUMS ID: 12784

Full Text HTML  Full Text PDF  104 kB

top ▲

[Home](#) - [About](#) - [Contact Us](#)

TUMS E. Journals 2004-2009  
Central Library & Documents Center  
Tehran University of Medical Sciences

Best view with Internet Explorer 6 or Later at 1024\*768 Resolutions