

20th World Congress on

NUTRITION & FOOD SCIENCES

May 14-16, 2018 Tokyo, Japan

Selenium increase the clearance of immune complexes in Kashin-Beck Disease, an endemic osteochondropathy**Xiaoxia Dai, Na Li and Yongmin Xiong**

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Many studies suggest that adequate intake of Se is required to ensure optimal immune function and to prevent malignancy. Various components of the immune system fail to function correctly if there is dietary Se deficiency. In the present study, the effect of selenium supplements on the clearance of immune complexes of patients with KBD was evaluated. The effect of different selenium preparations on: (1) Erythrocyte selenium content, (2) activities of glutathione peroxidase, (3) erythrocyte immune adherence function and (4) circulating immune complexes (CIC) content of patients with KBD was determined. The effect of sodium selenite and selenium yeast was also compared. In this randomized study, fifty Kashin-Beck disease patients from the endemic area, aged 13-16 years, were divided into two groups and were given either selenium yeast or sodium selenite orally to provide 200 µg of selenium per day for 12 weeks. After supplementing with selenium for 12 weeks, erythrocyte selenium level, glutathione peroxidase activity and E-C3bRR showed significantly high values, the difference in E-ICRR content was not significant. The effect of selenium in enhancing blood selenium levels and the clearance of immune complexes is greater when supplements provided as selenium yeast is used as compare to sodium selenite.

Biography

Xiaoxia Dai has completed her PhD in 2006 from Xi'an Jiaotong University and Postdoctoral studies from University of Iowa Carver College of Medicine, Department of Microbiology and Immunology. Currently she is the Researcher and Teacher in School of Public Health, Xi'an Jiaotong University Health Science Center. She has published more than 20 papers and has been serving as a Member of the Society of Trace Elements in Shaanxi province.

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