

A Study of frequency in TNF alpha gene with Type2 diabetes mellitus with chronic periodontitis

Liu Bo

Stomatological Hospital of Nankai University, China

Purpose: To detect the frequency of TNF alpha gene in the patients of type 2 diabetes mellitus with chronic periodontitis, periodontitis without any systemic diseases and healthy controls. We studied the clinical index of all the group to know if allele would affect the development of periodontitis.

Methods: Case groups were consisted of 112 patients with moderate, severe type 2 diabetes mellitus with chronic periodontitis, 99 patients with moderate, severe periodontitis without any systemic disease, 50 subjects of age and gender matched with healthy periodontal conditions were enrolled. Clinical parameters were measured and recorded including probing depth(PD), clinical attachment loss(CAL), bleeding index(BI), and tooth movement(TM). The polymorphism of TNF- α -308 genotype was examined after electrophoresis on agarose gel and ethidium bromide staining. The differences between the case groups and healthy group were analysed by chi square test, the differences in clinical index among groups which taken different allele were performed by mean square analysis with SPSS13.0 software.

Results: We divided DM and CP groups into moderate and severe groups. There were significant differences between severe DM group and severe moderate CP group, and moderate DM group and chronic periodontitis of severe moderate group. The probing depth and clinical attachment loss of the patients who took TNF- α -308 allele II was significantly higher than the patients who took TNF- α -308 allele I in DM and CP group.

Conclusion: TNF- α -308 allele II might raise the susceptibility of periodontitis in population. TNF- α -308 allele II may play an important role in synergistic reaction of periodontitis and type 2 diabetes.

Biography

Liu Bo has completed his Masters at the age of 26 year from China Medical University and postdoctoral studies from Stanford University School of Medicine. He has published 2 papers in Chinese core journals.

lba555@163.com