Consideration of malpositioned implant and implant occlusal complications

Jae-Hong Lee, Jung-Im Park, Young-Taek Kim*
Department of Periodontology, National Health Insurance Service, Ilsan Hospital

INTRODUCTION
Mechanical complications caused by malpositioned implant are mostly associated with unfavorable cantilever load distribution and increase the risk of structural failures. The aim of this study is to identify the relation between the implant malposition and complications.

PATIENTS AND METHODS
191 cases were investigated for 34 months from January 2010 to October 2012 in the department of dentistry, the general hospital. Radiographic evaluations were performed to determine the cases showing non-axial occlusal loading. Patients’ charts and clinical photos were reviewed for detailed information.

RESULTS
Among 191 cases, 30 cases showed fractures of fixtures, abutments, screws or implants. Out of a total 30 cases, 17 cases were evaluated to have complication caused by the malpositioned implant.

CONCLUSIONS
Malpositioned implant seems to cause several implant complications: ceramic fracture, occlusal screw loosening or fracture, abutment or abutment screw loosening or fracture, and implant fracture. In order to prevent the failure and complication caused by the malpositioned implant, proper diagnosis and treatment plan are required. On the basis, implant placement should be performed carefully in a position that receives optimum axial loading.