

# Consideration of malpositioned implant and implant occlusal complications

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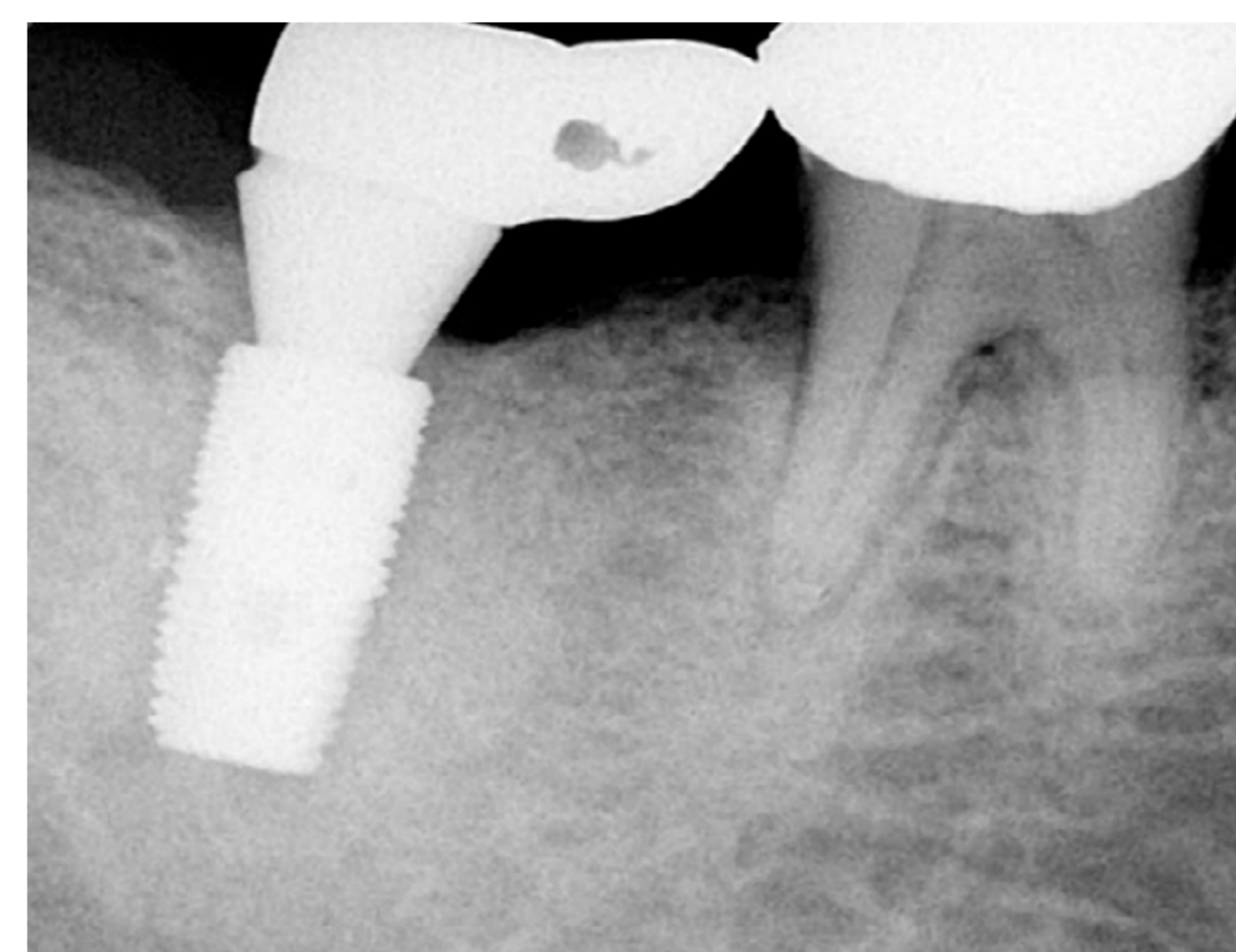
## INTRODUCTION

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

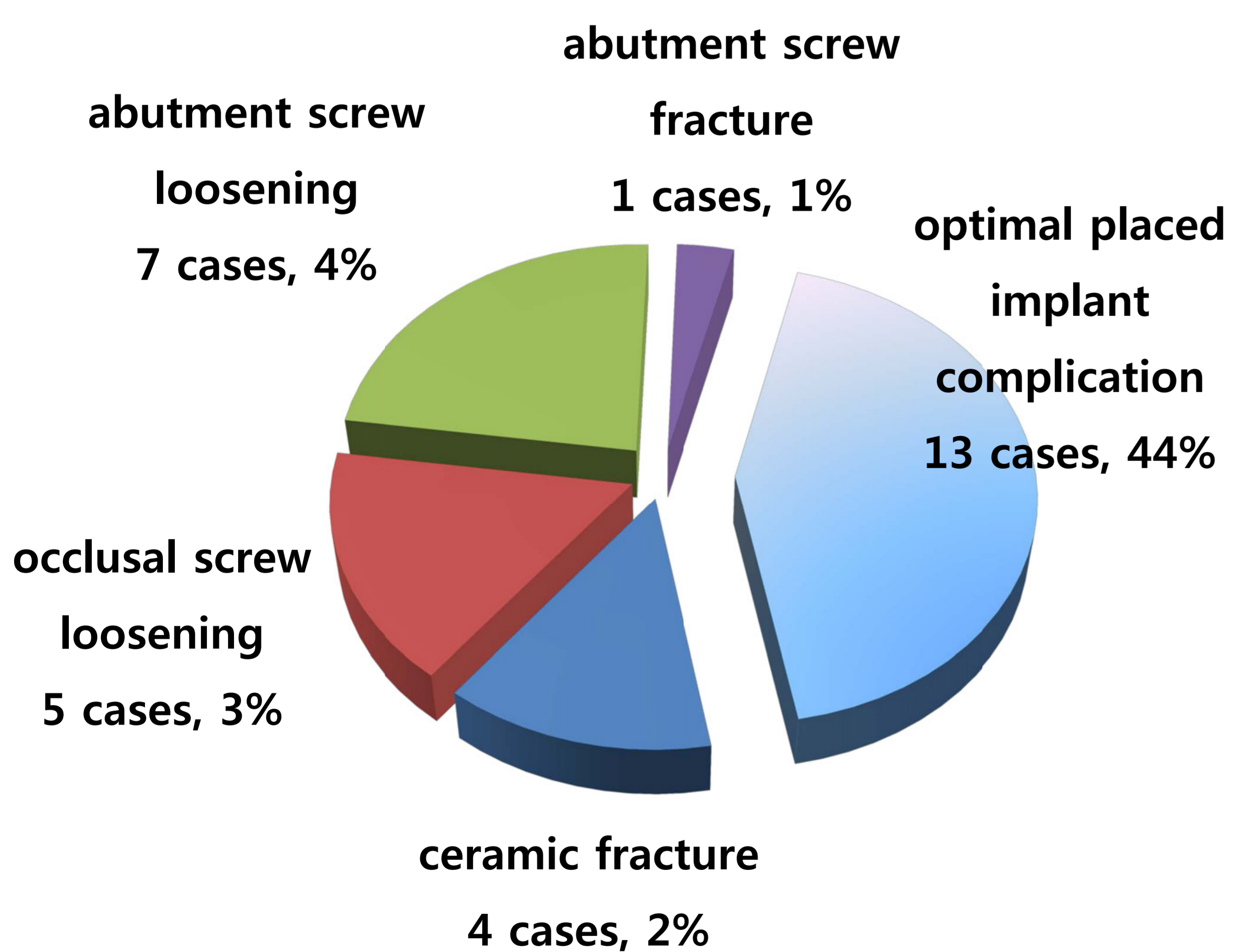
191 cases were investigated for 34 months from January 2010 to October 2012 in the department of dentistry, the general hospital. Radiographic evaluations were performed to determine the cases showing non-axial occlusal loading. Patients' charts and clinical photos were reviewed for detailed information.

## RESULTS



Patients above this radiographs were referred to our general hospital for implant complication treatment

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.



4 cases had ceramic fracture, 5 cases had occlusal screw loosening, 7 cases had abutment screw loosening, and the other 1 case had abutment screw fracture.

One case of which had abutment screw loosening 3 times, another had ceramic fracture 2 times, and another had occlusal screw loosening 2 times. Malpositioned implant was clearly confirmed in 56.7% of the cases where the complication had occurred.

## 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.