

## Original Research

### Assessment of prevalence of complications among patients with immediate denture

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#### ABSTRACT:

**Background:** The present study was conducted to determine complications associated with immediate overdentures. **Materials & Methods:** The present study was conducted on 74 patients of both genders. Patients were given overdentures and were recalled at regular intervals. The prevalence of complications and type of complications were recorded. **Results:** Out of 74 patients, males were 46 and females were 28. Out of 74 patients, 22 had complication which contributed to 29.7% complications. Common complication was denture stomatitis seen in 6 followed by loss of retention in 5, gingival hyperplasia in 4, pain in tissue in 4 and denture fracture in 3. The difference was significant ( $P < 0.05$ ). **Conclusion:** Authors found prevalence of complications to be 29.7%. Most common complication was denture stomatitis followed by loss of retention and gingival hyperplasia.

**Key words:** retention, Overdenture, Edentulism.

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#### INTRODUCTION

Despite the increased popularity of dental implants, conventional crowns and bridgeworks make up a major element of general and prosthodontic dental practice, especially in developing countries. It is important therefore, to evaluate success and the survival of the constructed restorations as well as causes and types of complications plus failures associated with these prostheses.<sup>1</sup>

Edentulism is a chronic, severe, irreversible medical condition and is described as the final marker of disease burden for oral health. It is common for elderly people, but it is not regarded any more as an inevitable phenomenon that comes with age. Fixed prosthodontic treatment involves the replacement and restoration of teeth by artificial substitutes that are not readily removable from the mouth. Its focus is to restore function, esthetics and comfort. Conventional crowns and bridgeworks make up a major element of general and prosthodontic dental practice, especially in developing countries.<sup>2</sup>

Scurria et al.<sup>3</sup> estimated the survival rates of fixed prostheses to be 92% and 75% at 10 and 15 years, respectively when failure was defined as prostheses removal. Dentures and overdentures, the most frequently used treatment options for the complete edentulism, can have local and systemic complications. For their prevention, treatment and reduction of their negative impact, it is necessary to understand their etiological context and to know their particularities of manifestation. Considering the relatively high rate of some complications of denture and overdenture treatment, knowing them is essential for ensuring a treatment that corresponds to the medical standards of care and patients' needs and expectations. The present study was conducted to determine complications associated with immediate overdentures.

#### MATERIALS & METHODS

The present study was conducted in the department of Prosthodontics. It comprised of 74 patients of both genders.

All were informed regarding the study and written consent was obtained. Ethical approval from institutional ethical committee was obtained prior hand.

Data such as name, age, gender etc. was recorded. Patients were given overdentures and were recalled at regular intervals. The prevalence of complications and type of complications were recorded. Results were tabulated and subjected to statistical analysis. P value less than 0.05 was considered significant.

**RESULTS**

**Table I Distribution of patients**

Total- 74		
Gender	Males	Females
Number	46	28

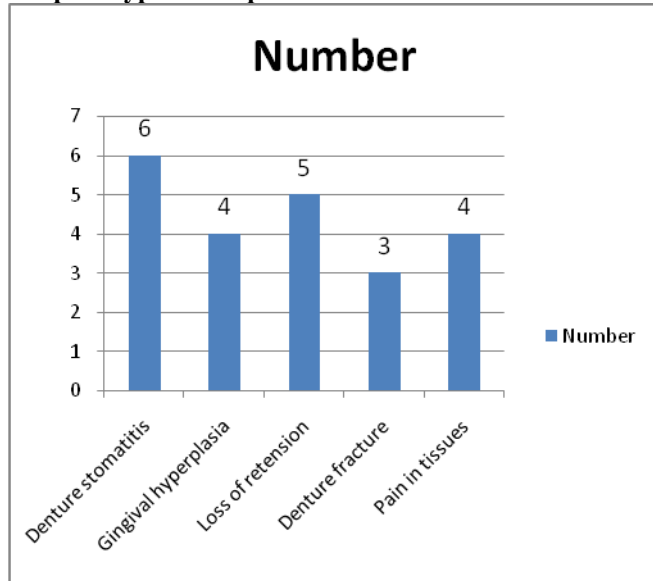
Table I shows that out of 74 patients, males were 46 and females were 28.

**Table II Prevalence of complications**

Total	Prevalence	Percentage
74	22	29.7%

Table II shows that out of 74 patients, 22 had complication which contributed to 29.7% complications.

**Graph I Type of complications**



Graph I shows that common complication was denture stomatitis seen in 6 followed by loss of retention in 5, gingival hyperplasia in 4, pain in tissue in 4 and denture fracture in 3. The difference was significant (P< 0.05).

**DISCUSSION**

The comfort of individual a care must be taken to avoid the common causes leading to their failures. The proper selection of the case, careful diagnosis, meticulous preparation, and a professional construction of prosthesis are mandatory to success and longevity of restoration and

maintenance of health of biological investing tissues.<sup>4</sup> Periodical check-ups are essential, considering that there are some complications with a high prevalence rate both for dentures and implant overdentures (e.g., loss of denture stability due to progressive ridge resorption, denture adjustments and relinings, clip activations). Additionally, the edentulous patients are often elderly patients, and face access barriers to dental care services, in relation to aspects like lack of finances or transportation difficulties. Due to this, it is recommended to keep in mind the possible complications and to take the appropriate preventive measures to limit them at the time the treatment is being planned and performed.<sup>5</sup> The present study was conducted to determine complications associated with immediate overdentures.

In present study, there were 74 patients, males were 46 and females were 28. We found that out of 74 patients, 22 had complication which contributed to 29.7% complications. A et al<sup>6</sup> in their study found local and systemic complications, such as gingival hyperplasia, denture stomatitis, loss of denture retention, fracture of the denture and functional impairment, mastication deficiencies having a negative impact on the nutritional status. Some patients cannot tolerate the dentures, aspect that can be connected to psychological factors, to patients' needs and expectations, but also to age, oral conditions, denture deficiencies and doctor-patient relationship.

We observed that common complication was denture stomatitis seen in 6 followed by loss of retention in 5, gingival hyperplasia in 4, pain in tissue in 4 and denture fracture in 3. Preoteasa et al<sup>7</sup> stated that material used for denture/overdenture fabrication associates the risk of developing complications in relation to their physico-chemical properties and their biocompatibility. For example, polymethylmethacrylate (PMMA), the material mostly used for manufacturing of dentures or overdentures, through its features (porosity, increased wettability, low mechanical strength, monomer release after curing) facilitates the occurrence of complications such as microbial or contact denture stomatitis, fracture of the dentures, artificial teeth discoloration and wear.

Root supported overdentures, with or without attachment systems, have the advantage of improved retention and stability, with a positive impact on the oral functions and the accommodation with the future dentures. Their possible complications include the ones of the conventional dentures and, additionally, some modifications of the supporting teeth or the attachment system used.<sup>8</sup>

Carlsson et al<sup>9</sup> found that implant-supported fixed full-arch prostheses are at present the treatment alternative which

best rehabilitates oral functions in edentulous patients. Classic protocols propose that implants should be unloaded during osseointegration (3 to 4 months in the mandible and 6 to 8 months in the maxilla). Micromovements have been considered, since the start of implant dentistry, one of the main risk factor for osseointegration.

## CONCLUSION

Authors found prevalence of complications to be 29.7%. Most common complication was denture stomatitis followed by loss of retention and gingival hyperplasia.

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