

## Possibility of Prosthetic Dental Treatment of Elderly Patient

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### Abstract

Europe is the continent of elderly people leading in the proportion of the elderly population with 19% in the world, followed by North America with 17%, Oceania with 13%, and Asia and South America with 9% each. Elderly people are a special group of patients. They are different from children and adolescents in many ways. They have health problems affecting the care of their mouth and teeth. The elderly have a lack of motivation and loss of communication skills. They suffer from chronic diseases such as diabetes, vascular diseases and/or cancers and are influenced by psychological, social and cultural changes that affect their need to seek dental care. The economic factor is also one of dominant reasons for neglecting dental care, especially prosthetic treatment. In the current case report, an economically acceptable fixed and removable prosthetic treatment of an elderly woman is presented.

**Keywords:** *The Elderly; Tooth Loss; Veneer Crowns; Partial Dentures*

### Introduction

Europe is the continent of elderly people and, according to Eurostat statistical data 2021, is leading in the proportion of the elderly population with 19%. It is followed by North America with 17%, Oceania with 13%, and Asia and South America with 9%. In EU countries this figure is projected to rise by up to 149.2 million inhabitants in 2050, which is 28.5% of the total population [1].

The elderly, likewise children, are a special group of patients which is in many ways different from children and adolescents. Why do elderly people differ from other populations? They have health problems that affect the care of their mouth and teeth. The medicines they take can interact with the medicines and therapy prescribed by dentists. There is a lack of motivation in this group of dental patients and inability to adapt to everyday life. In addition, communication difficulties are also present. The elderly suffer from chronic diseases such as diabetes, vascular diseases and/or cancers. They have age related physiological changes such as decreased secretion of saliva and sense of taste. In Addition, there are changes in bones and joints. The elderly are influenced by psychological, social and cultural changes that affect their need to seek dental care. Changes that affect all organs and organ systems in humans are also noticeable in their stomatognathic system [2-5].

**Guideline for dental examination**

The main dental conditions associated with aging are: xerostomia, coronal and root decay with gum diseases and periodontitis [6-8]. Therefore, it is of utmost importance to check them up thoroughly starting from basic information to the end of clinical examination followed by the plan for adequate dental treatment, depending on their state of oral and general health (Table 1).

1 Basic information about the patient
2 Medical history and analysis of general health condition
3 Dental and prosthetic history
4 Clinical examination
5 Radiological examinations and analysis of study models
6 Summary of diagnostic tests, guidelines and recommendations for therapy

**Table 1:** Order of dental examination of an elderly patient.

During clinical examination it is very important to select the remaining teeth in different categories that will facilitate the dentist to remove unusable teeth and plan an adequate prosthetic treatment (Table 2).

1 What is the patient’s primary dental problem? subjective / objective /
2 What is oral hygiene like?
3 Which teeth have a bad prognosis / for extraction /?
4 Which teeth or roots have an uncertain prognosis? / but are important for rescue due to prosthetic or psychological reasons /
5 What is the prognosis for the remaining teeth?
6 How to treat missing teeth? / with fixed, removable, combined or implant prosthetic appliance /

**Table 2:** Guidelines for clinical examination and history.

**Case Report and Discussion**

A 66 year old elderly woman was referred to the Department of Prosthodontics, School of Dental Medicine in Zagreb, with main complaints of missing teeth in lateral parts of both jaws. After clinical examination and the analysis of panoramic image, a combined prosthodontic treatment was indicated concerning also the economic situation of the patient [9,10].

After the periodontal treatment of the abutment teeth, the fixed prosthodontic treatment was performed with blocks of veneer crowns with distal attachments in both jaws. The end of the therapy was a removable prosthodontic treatment with upper and lower partial dentures. The patient was informed of oral hygiene maintenance and cleaning procedure of crowns and partial dentures (Figure 1-4).

**Conclusion**

The elderly can have numerous health problems that affect the care of their mouth and teeth. Psychological, social and cultural changes have effects on their need to seek dental care. Among social factors, the lack of money to support expensive implant and prosthodontic treatment is often a limiting factor. In the present case of posterior tooth loss, we showed an inexpensive prosthodontic treatment with veneer crowns and removable cobalt chrome partial dentures.



**Figure 1:** Block of four anterior upper partial veneer crowns with distal attachments.



**Figure 2:** Block of four anterior upper partial veneer crowns with upper partial removable denture.



**Figure 3:** Upper partial removable denture with veneer crowns / oral view /.



**Figure 4:** Upper and lower partial removable dentures attached to veneer crowns.

Removable dentures have the advantage in the treatment of elderly patients that they can be modified in the event of possible tooth loss in future. In addition, they can be very efficient, thus significantly enhancing patients' oral health and quality of life.

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