Effect of Implant Insertion Time on the Supporting Structure of Implant Supporting Mandibular Overdenture

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Dedication

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Introduction

For several decades conventional complete denture was the treatment of choice for completely edentulous patients.

Mandibular complete dentures have well known problems in retention and stability unlike maxillary denture due to presence of large palatal vault and suction force.

Tooth supported overdentures have well documented problem that patient should achieve good oral hygiene to protect abutments against caries and periodontal disease and it is bulkier than conventional denture. [1]

Dental implants changed the concept of removable prosthodontics treatment options and expectations. Such treatment modalities need careful diagnoses, good treatment planning, long term evaluation to assure success and survival. [2, 3]

Two Implant supported overdenture is considered the most popular treatment modality of lower edentulous ridge as implant provides support, retention and patient satisfaction.

A two stage surgical technique was originally supported in order to enhance the process of new bone formation and remodeling, following implant placement.

In one-stage surgical procedures, flaps are sutured around the polished neck of implants avoiding the need for second stage surgical intervention.

The concept of progressive loading based on the idea that low grade bone stimulation of gradual loading will allow bone to mature, grow denser and improve in quality

Cone beam CT is used during implant treatment planning to measure accurately the height and the width of bone and to avoid placing of implants in vital structures such as inferior alveolar nerve and mental foramen

Conventional implant practice dictates a delay between tooth extraction and implant placement, dividing the treatment into two steps.

Delayed implant placement can ensure that surrounding tissues have time to heal properly.

Immediate implant placement reduces the number of surgical procedures. This fact is being popular among patients and increases their acceptance, that prefer submit themselves into fewer surgical interventions.

Many dentists and patients prefer to place immediate implant rather than preserving a tooth with poor prognosis to preserve the remaining bone from resorption.

So the question raised now which is better immediate or delayed implant placement?

REVIEW OF LITERATURE

I) Edentulism:

Edentulism is defined according to the glossary of prosthodontics as the state of being edentulous without natural teeth which is divided into two major categories: 1) complete edentulism 2) Partial edentulism. [4]

Edentulism is a debilitating and irreversible condition and is described as the "final marker of disease burden for oral health". [5]

Complete edentulism has become less frequent as a result of recent breakthroughs in dental technologies and materials as well as higher public awareness due to frequent conservative and preventive programs.[6]

The risk factors for tooth loss are plenty. Dental diseases such as caries and periodontitis are among the most frequent risk factors. Poverty, ignorance and unhealthy hygienic habits such as smoking and alcoholism are also common risk factors. Systemic diseases such as diabetes and osteoporosis could also be counted as risk factors. Given the large number of those diverse risk factors, one cannot single out one risk factor as the most threatening. [7]

Edentulism has a negative impact on oral and general health. Oral consequences vary from the well-known residual ridge resorption to an impaired masticatory function and this will lead to an unhealthy diet, social disability, and poor oral health quality of life. Edentulous individuals are also in greater risk for different systemic diseases and