



# TELEDENTISTRY PROGRAM 2025



A monthly forum for promoting collaborative learning in dentistry



## **SESSION 8**

Date: 13<sup>th</sup> August 2025

Time: 2:00 pm to 3:30 pm

Mode: Online (Zoom platform)

#### **HOSTED BY**

Department of Periodontology and Implantalogy

Department of Conservative Dentistry and
Endodontics

Sri Ramachandra Dental College & Hospital SRIHER(DU)

### **MEETING LINK**

https://us02web.zoom.us/j/86217004548? pwd=UHubaU9yaxBTbbunJSsP4HJrlTrwMo.1

Meeting ID: 862 1700 4548 Passcode: 123456

















Dr. H. Thamizhchelvan (Dean)

Dr. S. Muthukumar (Chairman, CSM and SAF)

Dr. K. C. Vignesh (Coordinator, Teledentistry)

Dr. Balagopal Varma R. (Principal)

Dr. Rakesh S. (Vice Principal)

Dr. R. Venkitachalam (Coordinator, DEU)

#### **ABSTRACT**

## OPTIMIZATION OF OSSEOINTEGRATION IN PATIENT'S WITH DEFECTIVE BONE METABOLISM-A CASE SERIES.

Dr. Swathi. D

Department of Periodontology and Implantology

Systemic conditions have significant impact on bone metabolism which could impact osseointegration. Systemic conditions such as Systemic Lupus Erythematosus (SLE), albinism, and vitamin D deficiency adversely affect bone metabolism, immune response, and healing, posing significant challenges for dental implant success as it significantly affects osseointegration. In SLE, autoimmune dysregulation leads to chronic inflammation and impaired bone remodelling, while patients with albinism may have connective tissue anomalies and altered healing potential. Vitamin D deficiency is known to reduce calcium absorption and bone mineralization, directly compromising osseointegration. These systemic alterations can result in delayed or failed integration of implants, increased peri-implant inflammation, and reduced long-term success rates. Recent advancements such as biofunctionalization and photofunctionalization of implant surfaces, offer promising strategies to enhance implant stability in medically compromised patients.

In this case series, three patients with different conditions- Systemic Lupus Erythematosus, Albinism and Vitamin D deficiency, reported to our department and we decided to use implants which were biofunctionalized using I-PRF on Vitamin D deficient patient as they are not immunocompromised. Biofunctionalization of dental implants with injectable platelet-rich fibrin (I-PRF) offers several clinical advantages.

Similarly, photofunctionalization of dental implants were done using Vaccum Ultraviolet Unit which helps in improved cell adhesion and osseointegration by removing contaminants and enhancing hydrophilicity, thus promoting better adhesion and proliferation of cells, particularly osteoblasts, which is crucial for successful osseointegration of dental implants.

This presentation reports three different cases with systemic conditions, who were successfully treated with dental implants using functionalization protocols.

# FRACTURE TO FUNCTION: REATTACHING A BROKEN SMILE Dr. Kritheka K.

Department of Conservative Dentistry and Endodontics

Traumatic dental injuries of the anterior teeth, particularly complicated crown-root fractures, pose considerable clinical challenges and often lead to esthetic, functional, and psychological implications for the patient. Effective management requires a comprehensive evaluation of biological, functional, and esthetic factors. Traditionally, treatment protocols have involved endodontic therapy followed by the placement of post and core-supported prosthetic restorations. However, with advancements in adhesive dentistry, there has been a growing shift toward fragment reattachment—a more conservative and biologically favorable approach. Fragment reattachment offers numerous advantages for both clinicians and patients, by reducing chairside time and providing superior and immediate esthetics by maintaining the tooth's natural form, color and surface texture.

This case report presents the successful management of a complicated crown-root fracture of a maxillary anterior tooth by Fragment reattachment approach.