

**“CLINICAL AND RADIOGRAPHIC OUTCOME OF  
IMMEDIATE PLACEMENT, IMMEDIATE LOADING DENTAL  
IMPLANTS BIOACTIVATED WITH PLASMA RICH IN  
GROWTH FACTORS: A 9 MONTHS PROSPECTIVE STUDY”**



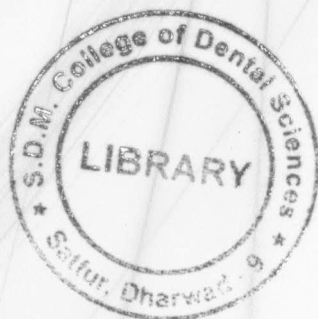
**By  
Dr. SASIKALA PAGADALA**

*Dissertation submitted to the  
Dr. N.T.R. University of Health Sciences,  
Vijayawada, Andhra Pradesh*

*In partial fulfillment  
of the requirements for the degree of*

**MASTER OF DENTAL SURGERY  
in the speciality of  
PERIODONTICS & ORAL IMPLANTOLOGY**

*Under the guidance of  
Dr. K. RAJA V. MURTHY*



**DEPARTMENT OF PERIODONTICS AND ORAL  
IMPLANTOLOGY  
GITAM DENTAL COLLEGE & HOSPITAL  
VISA KHAPATNAM, ANDHRA PRADESH.  
(2009-2012)**

## **ABSTRACT :**

### **Objectives :**

The purpose of this study was to determine the success rate of dental implants bioactivated with platelet rich plasma, placed immediately into fresh extraction sockets, for a period of 9 months after placement.

### **Methodology :**

Fourteen patients with a single tooth indicated for extraction were treated by removing the tooth, followed by placement of dental implants immediately into fresh extraction sockets. Before placement of the dental implant into the osteotomy site, the implant surface was humidified with platelet rich plasma. Also the deficient areas between the implant surface and socket wall were filled with PRP. The clinical parameters recorded were Plaque index, Gingival index, Sulcular bleeding index, Pocket depth and Implant mobility. The radiographic parameters included IOPA radiographic assessment of crestal bone loss and analysis was done by Image J software. The success rate of implants were assessed.

### **Results :**

All fourteen patients with a mean of 35.85 years were regularly followed up during the entire 9 month period. Plaque index, Gingival index, Sulcular bleeding index around the implant and full mouth were comparable and changes in these indices were statistically significant. Pocket depth increased marginally around the implant, however this increase was not statistically significant. None of the implants were clinically mobile during the follow up period. Radiographically, when the IOPAR

was analysed through Image J analysis, they showed statistically significant bone remodelling around the implant.

#### Interpretation and Conclusion:

The success rate of dental implants bioactivated with platelet rich plasma, placed immediately into fresh extraction sockets was 100% after a follow up period of 9 months.

#### Key words:

Osseointegration; Immediate implant placement; Jumping distance; Platelet rich plasma; Growth factors.