

**“TOPICAL USE OF AUTOLOGOUS PLATELET
RICH FIBRIN IN TYMPANOPLASTY”**

By

Dr. NIHARIKA S SHETTY MBBS



**Dissertation Submitted to the
Rajiv Gandhi University of Health Sciences, Bengaluru, Karnataka**

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

MASTER OF SURGERY

In

OTORHINOLARYNGOLOGY

Under the guidance of

DR. ASHOK NAIK

PROFESSOR



**DEPARTMENT OF OTORHINOLARYNGOLOGY,
SDM COLLEGE OF MEDICAL SCIENCES & HOSPITAL,
SATTUR, DHARWAD.**

2018-2021

ABSTRACT

BACKGROUND & OBJECTIVES:

Tympanoplasty is the most common surgery performed in safe type (mucosal) of Chronic Suppurative Otitis Media. Platelet Rich Fibrin is one of the materials that can be used to improve the graft uptake and hearing outcome. It is obtained by blood extraction and centrifugation and contains leukocytes, cytokines, structural glycoproteins and growth factors. In this study main objective was to know the efficiency of use of PRF in closure of tympanic membrane and its influence on the hearing outcome

METHODS

This study comprised 30 consecutive patients of safe type COM who underwent tympanoplasty with PRF in Group A and 30 patients who underwent Tympanoplasty without PRP in Group B. The outcome was measured by endoscopic evaluation every month for at least 3 months to look for graft uptake and hearing gain by Pure tone audiometry after 3 months of surgery.

RESULTS

In our study population, among the 30 cases that underwent tympanoplasty with platelet rich fibrin, 29 had complete tympanic membrane closure and only one failure has been noticed. However among controls 3 out of 30 cases had failure. Thus the overall the success rate was 96.6% in PRP group and 90% in control group.

Post op hearing gain among cases shows that 18 cases(60%) had an improvement of >15dB whereas among controls 12 cases(40%) had hearing improvement of >15dB.

INTERPRETATION & CONCLUSION

Considering the higher success rate of tympanoplasty with PRF compared to control group together without any noticeable side effects we recommend that tympanoplasty with autologous PRF should be preferred as it is a cheap and cost effective platelet concentrate , rich in growth factors and accelerates the tympanic membrane closure , prevents graft displacement and improves the hearing outcome

Keywords : Tympanoplasty, Platelet Rich Fibrin, graft uptake, Chronic Otitis

Media