31st ANNUAL CONFERENCE OF ANDHRA PRADESH NEURO SCIENTISTS ASSOCIATION
APNEUROCON 2024 GUNTUR

# Navigating Complexity: The Minimally Invasive Posterolateral Transtentorial Approach in Neurosurgery (MIPLATTA) case series

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## INTRODUCTION

The posterolateral transcavernous transtentorial approach represents a significant evolution in neurosurgery, offering a less invasive pathway to deep-seated lesions within the middle, posterior cranial fossa.

It capitalizes on the natural corridors provided by the anatomy of the skull base, utilizing key anatomical landmarks such as the tentorium and the cavernous sinus.

## AIMS / OBJECTIVES

We aim to review the principles, anatomical considerations, and surgical nuances of the minimally invasive posterolateral transcavernous transtentorial approach (MIPLATTA).

## MATERIALS / METHODS

We discuss its advantages over traditional approaches, including reduced manipulation of healthy brain tissue, decreased surgical trauma, and faster recovery times for patients.

5 cases underwent this procedure, for different pathologies in our institute from 2022 to 204, highlighting its efficacy and safety profile.

| Patients | Diagnosis |
|---|---|
| 35yr/F | Left Trigeminal Schwannoma |
| 45yr/M | Right Trigeminal Schwannoma |
| 42yr/F | Right Trigeminal Schwannoma |
| 49yr/F | Right CP angle Epidermoid |
| 54yr/F | Left Trigeminal Cystic Schwannoma |

## RESULTS & DISCUSSION

In our study, 5 patients under this approach, presenting with deep-seated lesions in critical areas of the middle and posterior cranial fossa.

All patients underwent successful resection of their lesions with minimal intraoperative complications. Postoperatively, neurological examinations demonstrated improved neurological function in 4 patients, with one patient showing transient postoperative deficits that resolved within three weeks.

Patients reported minimal postoperative pain and achieved rapid recovery, with most discharged within a week of surgery. Radiological assessment confirmed complete resection of the lesions in all cases, with no evidence of residual or recurrent disease during follow-up imaging.

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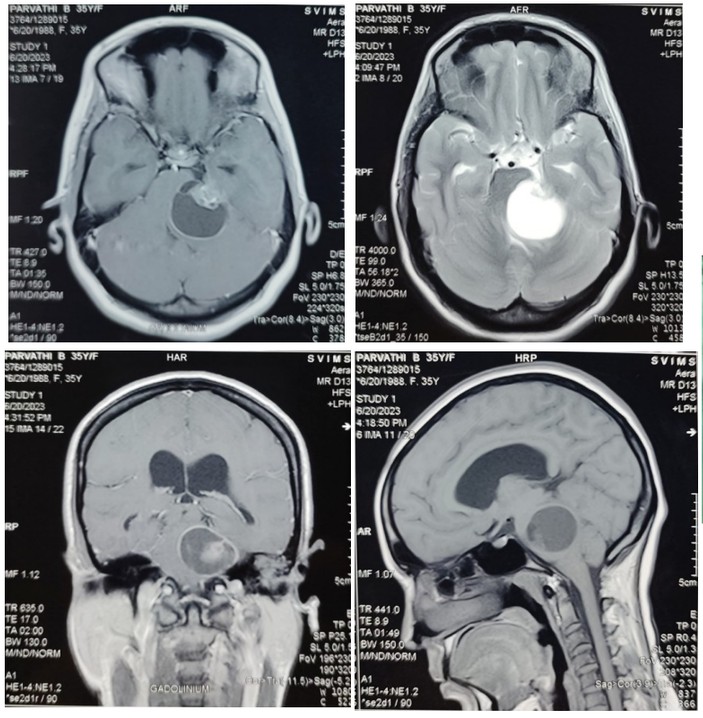
## PRE AND POST OP IMAGES

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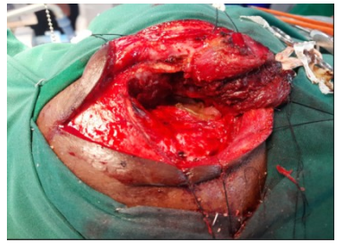

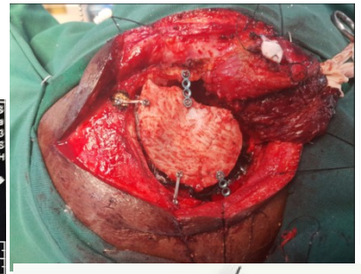

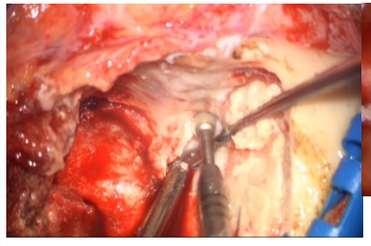

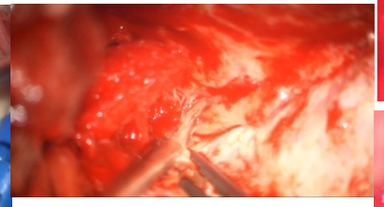

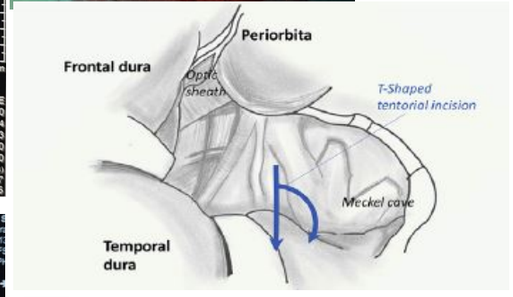


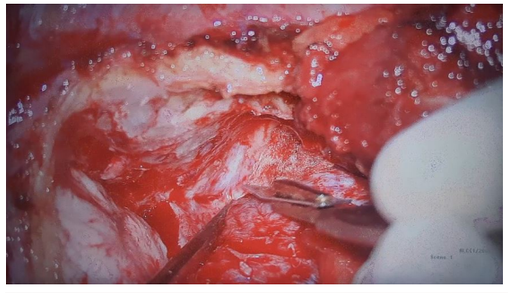

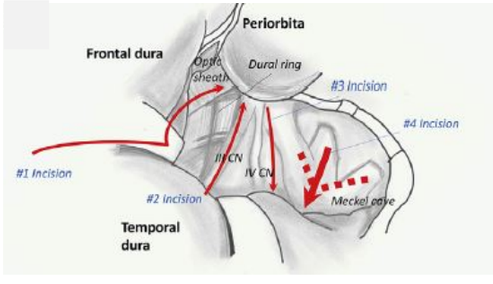


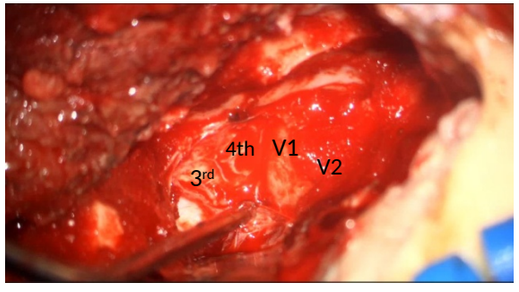


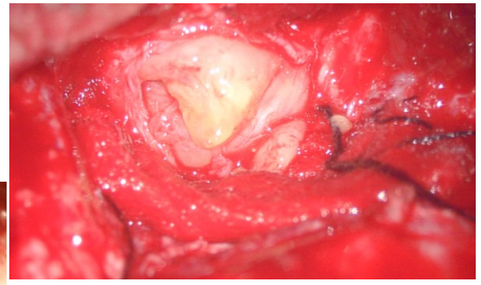

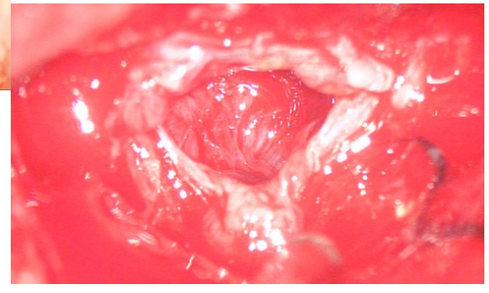

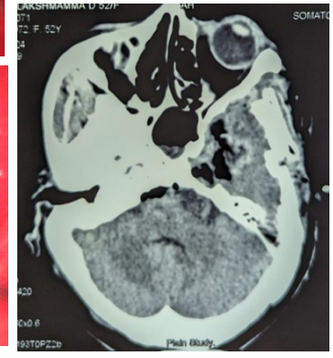

## CONCLUSION

Our results highlight the feasibility and safety of this approach in achieving effective lesion resection while minimizing surgical morbidity, and also valuable option in the management of complex intracranial pathologies.

This approach offers a strategic balance between surgical access and patient outcomes.