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

PIT-1 Plurihormnal Pituitary Tumors : From Diagnosis to Therapy

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INTRODUCTION

Pituitary adenomas expressing multiple hormones, particularly those positive for PIT-1 transcription factor, present unique challenges in diagnosis and management due to their varied clinical presentations and hormonal profiles.

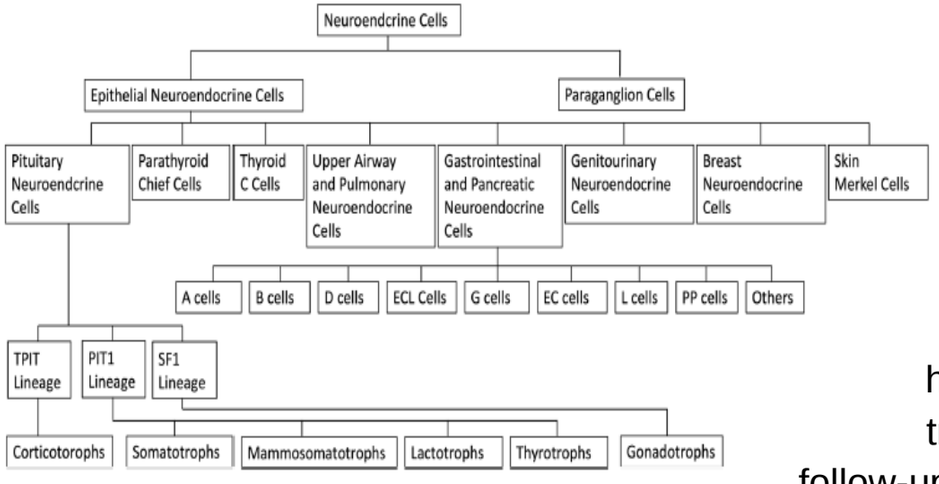
Diversity in hormonal secretion patterns complicates treatment decisions.

AIMS / OBJECTIVES

Our study aims to analyze the clinical characteristics, diagnostic approach, treatment strategies, and outcomes of 3 patients diagnosed with PIT-1-positive plurihormonal pituitary tumors.

MATERIALS / METHODS

We conducted a retrospective analysis of three cases of PIT-1-positive plurihormonal pituitary tumors diagnosed and treated at our institute between 2022 and 2024.



Clinical data including presenting symptoms, hormone profiles, radiological findings, histopathological features, treatment modalities and follow-up outcomes were reviewed.

RESULTS & DISCUSSION

All three patients presented with varying combinations of hormonal hypersecretion, including growth hormone (GH), prolactin (PRL) and FSH,LH .

Patient	Presenting Features
49yr/F	Arcomegaly (GH, PRL Positive)
42yr/M	Non functioning
20yr/M	Non functioning(FSH, LH Positive)

Radiological imaging revealed pituitary macroadenomas in all cases, with distinct patterns of invasion and compression of adjacent structures.

Histopathological examination confirmed plurihormonal expression consistent with PIT-1 positivity.

Treatment strategies ranged from Transsphenoidal surgery(TNTS) to adjuvant medical therapy and radiation, tailored to individual tumor characteristics and hormone secretion profiles.

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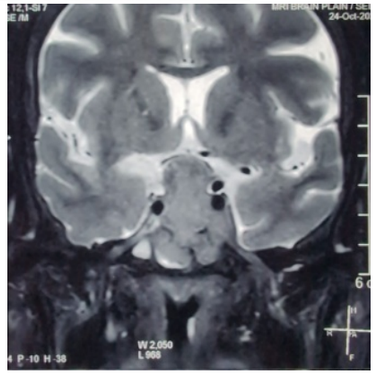

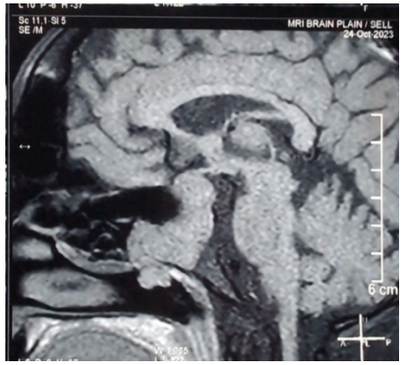

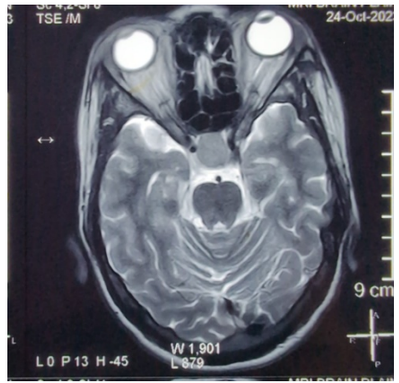

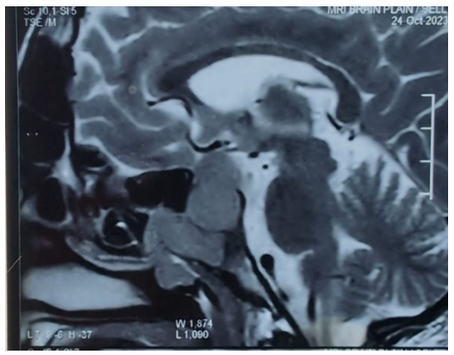

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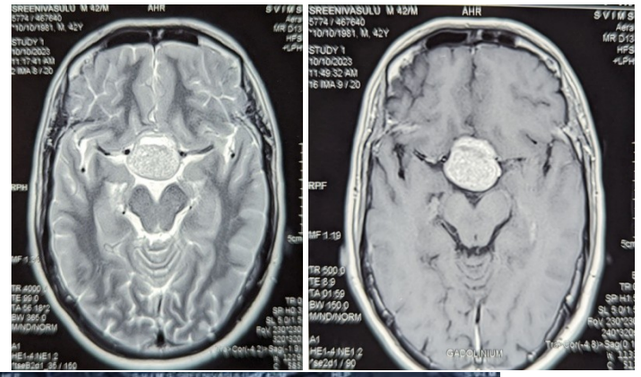

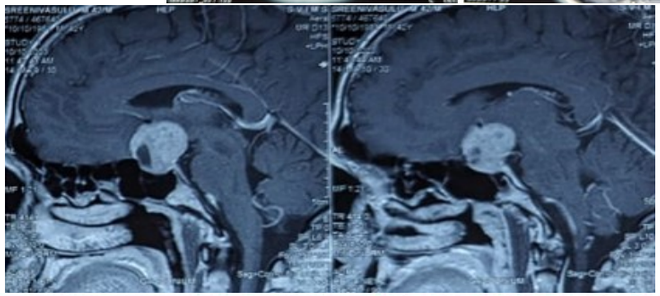

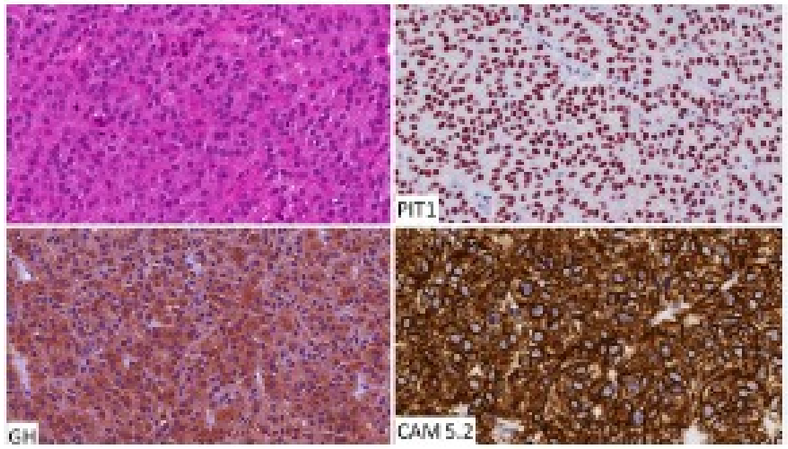

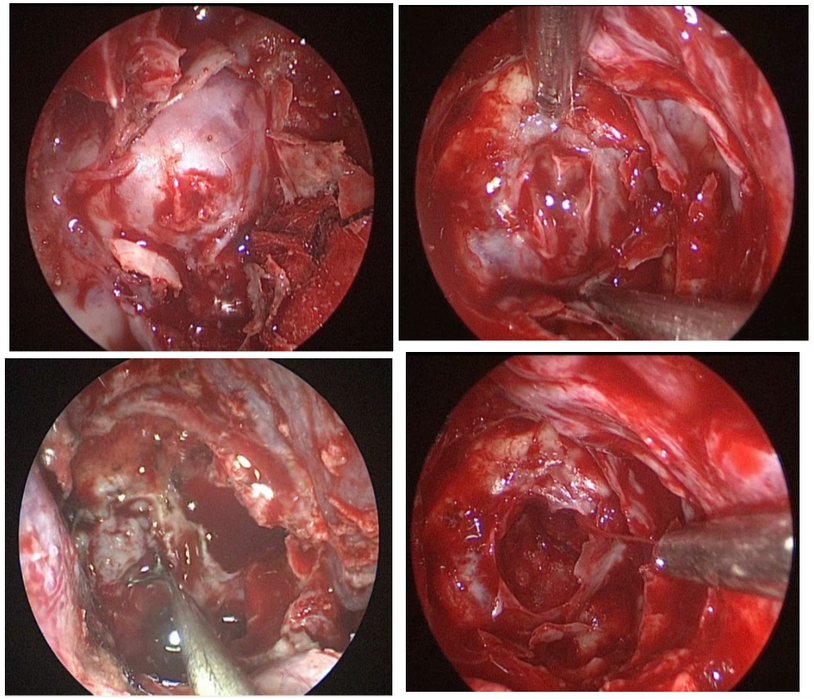

CONCLUSION

PIT-1-positive plurihormonal pituitary tumors represent a rare subset of adenomas with complex clinical presentations and therapeutic challenges. More of a HPE diagnosis.

Further research is warranted to elucidate the molecular mechanisms driving hormone co-expression and to explore novel therapeutic targets for improved patient outcomes.