

Case Report

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Polycystic ovarian syndrome and pituitary macroadenoma a deadly combination with good outcome

Ansari Sumayya Shamim; Reena Jatin Wani; Hema Prakash Relwani; Kruti Doshi*

H.B.T. Medical College & Dr. R. N. Cooper Hospital, Juhu, Mumbai, India.

*Corresponding Authors: Hema Prakash Relwani

H.B.T. Medical College & Dr. R. N. Cooper Hospital,
Juhu, Mumbai, India.

Email: bharwanihema22@gmail.com

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Summary

In spite of having both Polycystic Ovarian Syndrome (PCOS) & Pituitary Macroadenoma, which warrant surgical management (major causes of Infertility) selected cases like ours can be managed medically successfully.

Introduction

PCOS and hyperprolactinemia are the two most common etiologies of anovulation in women [1]. PCOS is recognised as the most common endocrine disorder of reproductive aged women around the world. Prolactinoma is present in about 50% women with hyperprolactinemia and 33% patient present with galactorrhea.

Case report

Our patient was 22 yrs nulligravida first presenting 5 yrs back married since 3 yrs with oligomenorrhea followed by secondary amenorrhoea with galactorrhea & infertility came to hospital & got evaluated. On evaluation she was diagnosed on Ultrasonography (USG) as polycystic ovarian disease.

Abstract

We are presenting here a case of polycystic ovarian syndrome, an endocrine disorder, afflicting 5-13% females of reproductive age, causing 70-80% infertility associated with pituitary macroadenoma i.e. size >10mm & prolactin level >250 ng/ml.

PCOS has a higher relationship with metabolic disturbance and hypothalamic-pituitary-ovarian axis function disorder.

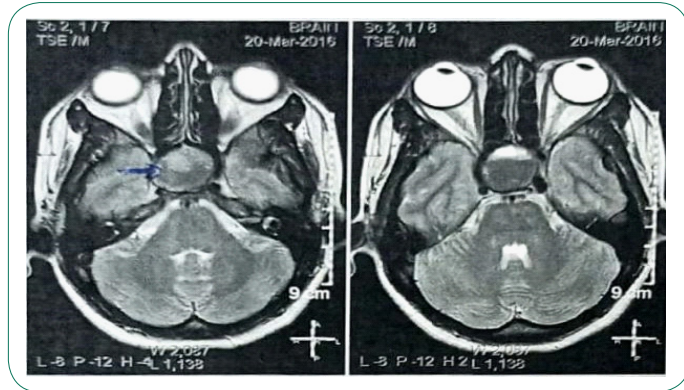
Prolactinoma is present in about 50% women with hyperprolactinemia and 33% present with galactorrhea.

Our patient was a 22 yrs nulligravida married since 3 yrs first presenting 5 yrs back with complaints of secondary amenorrhoea with galactorrhea and infertility. On evaluation she was diagnosed as PCOS and pituitary macroadenoma on MRI. We medically treated her with tab. cabergoline in consultation with endocrinologist and neurosurgeons opinion. Being a compliant patient with regular follow up she conceived twice with good outcome and breastfed her babies on medical management only. Now she has 2 children (male child of 3 yrs and 1 month). Dilemma in management options will be discussed.



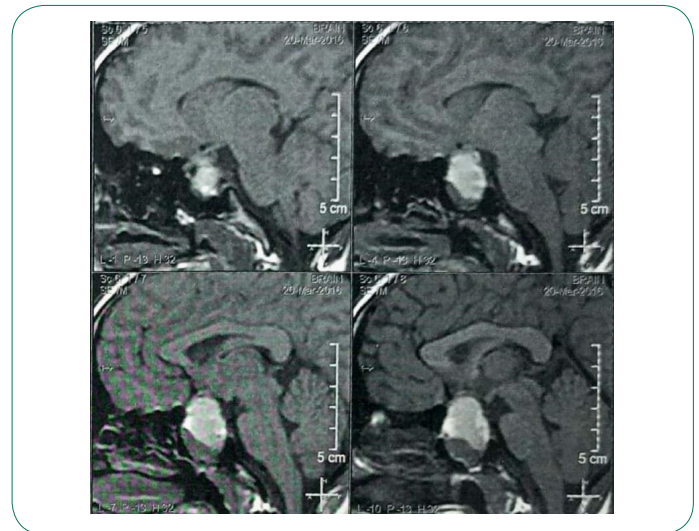
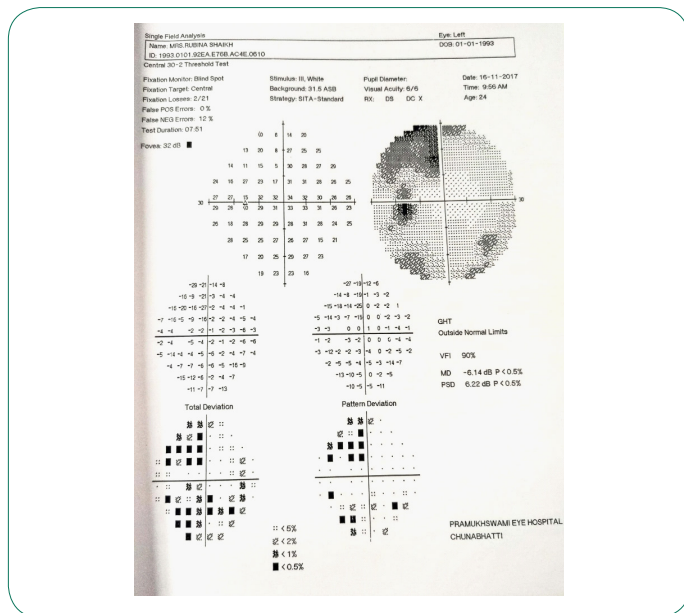
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Her Sr. prolactin was >329 ng/ml. All other hormones Sr. TSH, FSH, LH are within normal limits. Then patient was advised to do MRI brain, on MRI 2.8 X 2.5 X 2.7 cm pituitary macroadenoma found with apoplexy, other anterior pituitary hormones are evaluated & found Within Normal Limits (WNL).



Though prolactinoma warrant surgery, after doing multidisciplinary approach to Endocrinologist, Gynaecologists and neurosurgeons, as patient keen to conceive decision of medical management taken. Patient started on Tab. cabergoline 0.5 mg twice weekly & Sr prolactin levels are monitored 3 monthly, Perimetry done. 3 monthly & MRI done yearly.

March 2016	2818	Twice weekly
March 2017	83.6	Twice weekly
March 2018	148.0	Twice weekly
Feb 2019	11.0	Once in a week
Aug 2020	32.1	Once in a week
Dec 2020	13.98	Once in a week

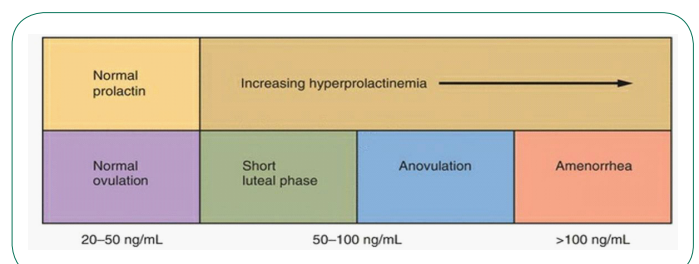


In 2017 on repeat MRI size was decreased slightly after that she was given Oral Contraceptive Pills (OCPs) for menstrual irregularities, patient conceived in NOV-2017 & cabergoline stopped for 2 month Sr Prolactin monitoring done which was increasing have re-started on T. cabergoline, Sr. Prolactin levels monitored 3 monthly & perimetry done in every trimester. She was given Tab. cabergoline throughout pregnancy & Lower Segment Caesarean Section (LSCS) was done at full term i/v/o poor Bishop's score. After delivery on endocrinologist advice T. cabergoline was continued & breastfeeding advised.

Patient continued on Tab. cabergoline once a week. She was then lost to follow up but in 2020 she conceived spontaneously and registered again with us. She was continued on Tab cabergoline weekly. Prolactin levels monitored 3 monthly and admitted near term. Emergency LSCS done i/v/o G2P1L1 with 38.2 weeks with previous LSCS in labour not willing for Trial Of Labour After Caesarean (TOLAC). Room in was done with exclusive breastfeeding and Tab Cabergoline continued she advised to repeat MRI brain after 6 weeks.

Discussion

PCOS has a higher relationship with metabolic disturbance and hypothalamic-pituitary-ovarian axis function disorder [2]. This syndrome results in hyperandrogenemia, hyperinsulinemia /insulin resistance, increase estrone, LH and FSH ratio imbalance, Infertility, cardiovascular disease, endometrial dysfunction, obesity [3]. PCOS women can have difficulty in conceiving. Prolactinoma is the most common type of hormone producing tumor. Prolactinoma (lactotroph adenoma) is one of the most common cause of prolactin excess [4]. Hyperprolactinemia is a typical condition producing reproductive dysfunction in both sexes, resulting in hypogonadism, Infertility and galactorrhea [4].



Prolactinoma is only tumour for which medical therapy has proven role. Surgery and radiotherapy are 2nd line of management [5].

Dopamine agonist Bromocriptine, Cabergoline, Pergolide mesylate, Lisuride, Quanagolide [5].

Cabergoline can be given once or twice a week with a starting dose of 0.25 mg twice a week. Titrate these based on prolactin level and tolerability [5].

Being a compliant patient with regular follow up she conceived twice with good outcome and breastfed her babies.

Now she has 2 children (male child of 3yrs and 1month).

Conclusion

Inspite of having both PCOS & Pituitary macroadenoma, which warrant surgical management (major causes of Infertility) selected cases like ours can be managed medically successfully.

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