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KEYWORDS :

A Case of Pituitary Macroadenoma in Etiology of Secondary Amenorrhea

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ABSTRACT

pituitary macroadenoma is rare etiology of secondary amenorrhea which was defined as absence of menstruation since 6 month in whom normal menstruation has already establish. A 32 years old female Hindu patient with G2P2A0L2 coming from medium socio economical status presented with amenorrhea since 3years, galactrrohea since 5months, visual disturbances since 3months.On clinical examination Bilateral breast examination shows milk like secretion, rest normal. All routine investigations were normal. Special investigation—S. prolactin level-265.7 ugm/ml, On lateral X RAY of skull and MRI shows 17/13 /11 mm pituitary macroadenoma which was compressing optic chiasma. After referring neurosurgeon, ophthalmologist and physician other pathologies were rule out, in my patient secondary amenorrhea was purely due to pituitary adenoma. Patient manages conservatively by Tab. Cabergolin thrice a week. Patient came in follow up with S. prolactin level, at present patient symptomatically better. Transphenoidal excision of tumor was other modality of treatment which needs colobration of Neurosurgeons.

Introduction-The commonest tumor of pituitary is adenoma which account for 15-20% of primary brain tumors. It is almost always benign and can present with abnormal pituitary gland hormonal function, loss of vision, headache, and bleeding in or around pituitary. Clinically they are divided into secretory and nonsecretory adenoma and visual disturbances are more common with nonfunctional adenomas. According to size they are divided into microadenoma(less than 1 cm) and macroadenoma (more than 1 cm). Secondary amenorrhea is defined as the cessation of menstruation for at least 6 month in whom normal menstruation already established. Differentiating primary from secondary amenorrhea does little to enhance the clinician's understanding the etiology. The symptoms caused by pituitary tumor often depend on whether they are releasing excess hormone or not. Tumor that are not making excess hormones after become large tumor –macroadenoma before they are noticed. Large tumor can affect nearby tissue, leading to headache and visual problems. Pituitary adenoma can cause a shortage of hormone vasopressin, leading a condition called diabetes insipidus. Surgery is considered when there is failure of medical therapy. Complications of surgery are meningitis, diabetes insipidus, leakage of CSF and recurrence. Nowadays there is radiation therapy is also preferred with safety.

CASE REPORT: A 32 yrs old Hindu patient G2 P2 A0 L2 residing at Bapunagar coming from medium socio economic status working as house wife admitted in our hospital. Patient had chief complaint of amenorrhea since 3 yrs, galactrrohea since 5 month and visual disturbances since 3 month. Previously patient had hypo menorrhea then gradually she developed complete amenorrhea since 3 yrs,For that patient had done two times UPT –negative, USG-normal. She had been given withdrawal in form of Tab. Medroxy progesterone twice a day for 5 days. Patient undergone 2 FTCS, having 13 yrs Female and 10 yrs male child alive. Past menstrual history was normal and gradually hypo menorrhea. Patient was known case of Diabetes since 1 yr and taking Tab. Gliclazide and Tab. Metformin with controlled glycemic index. On general examination patient was obese, no pallor, Pulse-84/min, BP-120/70 mm of Hg. On breast examination milk like material expressed that rule out galactrrohea. On per abdomen examination soft, nontenders, obesity present, scar of LSCS present. On Per speculum examination cervix was healthy, no infection at present. On per vaginal examination uterus anteverted, normal size, bilateral fornices clear. All routine investigation (Hb-11.4,TC-5000, APC-3 lack, BG-B positive, FBS/PPBS-90/110 ,BL Urea-30, S. Creat-0.5, S. bilirubiin-0.8) were in normal range. In specific investigation S. FSH-2.02 mIU/ml, S. LH-0.34 mIU/ml, S. Prolactin-265.7 ugm/ml which was very high, S.TSH-2.68 mIU/ml, S. Cortisol-22.6. On skull X-ray AP and lateral view shows pituitary adenoma which compresses sella-tursica. On MRI study there was 17/13/11mm size hypo echoic area in pituitary fossa which compresses optic chiasma. We had treated this patient conservatively by Tab. Cabergoline 0.5 mg thrice a week as per endocrinologist advice. Patient advised follow up monthly with S. prolactin level. If pituitary macroadenoma not responded by conservative management in 6month-1 year then Transphenoidal excision of pituitary tumor according to neurosurgeon.

Discussion:- As we all know secondary amenorrhea is defined as the cessation of menstruation for at least 6 month or for at least 3 of the previous 3 cycle interval. In secondary amenorrhea with comparative less investigation, the result is satisfactory. But the percentage of causes falls steeply as the duration of amenorrhea lengthens. However, with or without treatment, spontaneous resumption of menstruation occurs in about 60% cause of secondary amenorrhea of more than 1 year duration.

All cause of secondary amenorrhea was excluded by various investigation and examination. At hypothalamus level stress, post pill amenorrhea, anorexia nervosa, drug induced e.g. antihypertensive and antidepressant like various cause excluded. At pituitary level pituitary adenoma and sheehan'syndrome was excluded by s.prolactin level, CT scan, MRI scan, X-RAY skull view. At ovarian level PCOS and premature ovarian failure excluded by USG, laparoscopy, S.LH and S.FSH level. At uterine level Asherman syndrome and T.B endometritis excluded by hysteroscopy and TBPCR study. Various cause of hyperprolactinomas e.g. physiological, hypothalamus, pituitary, renal failure, cirrhosis of liver and drug induced (methyldopa, phenothiazines, antidepressants) were excluded. Differential diagnosis includes pituitary tuberculoma especially in developing countries and in immunocompromised patient diagnosis confirmed by hormone level, radiography, CT scan, and MRI.

Prolactinomas are most often treated with bromocreptin or more recently, cabergoline which decrease tumor size as well as symptoms, followed by serial images for size and s.prolactin level required for follow up. Transphenoidal adenectomy surgery can often remove the tumor without affecting parts of the brain. Endoscopic surgery has become common recently.

In secondary amenorrhea there is altered coordinated function of hypothalamopituitary axis, by some pathology. However, meticulous history, examination, laboratory investigation required to confirm the diagnosis. In all cases pregnancy is excluded first.

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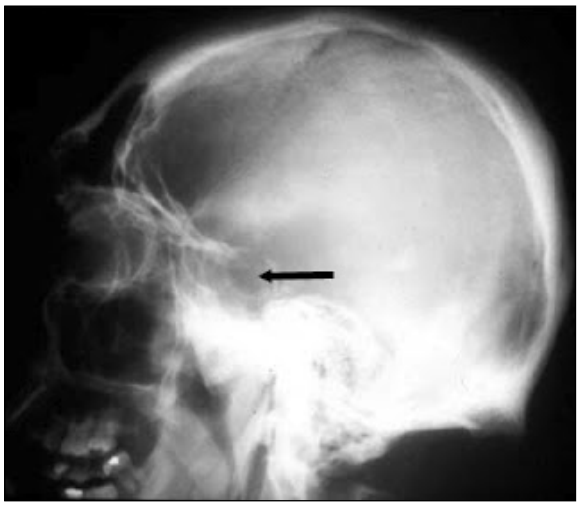
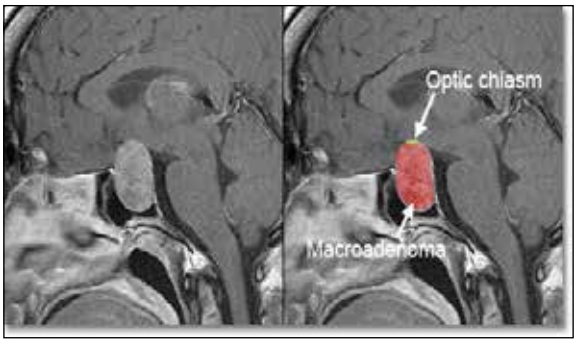
Pituitary gland is often referred to as the "Master Gland" of the human body, part of hypothalamic pituitary axis. It controls most of the body's endocrine function via the secretion of various hormones into the circulatory system.

Pituitary adenoma is rare cause of secondary amenorrhea, but when patient comes to you with secondary amenorrhea, galactrrohea and vision problems then always rule out pituitary adenoma by MRI, CT scan, X-RAY skull and s.prolactin level.





REFERENCE

1) Young L, Yu J (1997). Ligninase catalysed decolourization of synthetic dyes. Water Res. 31: 1187-1193. | 2) Banat IM, Nigam P, Mc Mullan G, Marchant R, Singh D (1996). Microbial decolourization of textile dye containing effluents. A Review. Biores Technol 58: 217-27. | 3) Do T, Shen J, Cawood G, Jeckins R (2002). Biotreatment of textile effluent using Pseudomonas spp. Immobilized on polymer supports", In: Advances in biotreatment for textile processing. Hardin, I.R; Akin D.E and Wilson J.S (Eds). University of Georgia Press.; Maier et al., 2004 | 4) Muurugalatha N, Mohankumar A, Sankaravadivoo A, Rajesh C (2010).Textile effluent treatment by Bacillus species isolated from processed food. African Journal of Microbiology Research. 4(20): 2122-2126 | 5) Olukanni OD, Osuntoki AA, Gbenle GO (2006). Textile effluent biodegradation potentials of textile effluent-adapted and non-adapted bacteria. Afr. J. Biotechnol., 5(20): 1980-1984. | 6) Forgacs E, Cserhati T, Oros G (2004). Removal of synthetic dyes from waste waters. Environ. Inter., 30: 953-971. | 7) Erkurt EA, Unyayar A, Kumbur H (2007). Decolorization of synthetic dyes by white rot fungi, involving laccase enzyme in the process. Process Biochem., 42: 1429-1435. | 8) Seshadri S, Bishop PL, Agha AM (1994). Anaerobic / Aerobic treatment of selected azo dyes in waste water. Waste Manage., 14: 127-137. | 9) Ganesh R, Boardman GD, Michelsen D (1994). Fate of azo dyes in sludges. Water Res. 28(6): 1367-1376. | 10) Sarnaik S, Kanekar P (1999). Biodegradation of methyl violet by Pseudomonas mendocrina MCM B -402. Appl. Microbiol. Biotechnol. 52: 251-254. | 11) Stolz A (1999). Degradation of substituted naphthalene sulfonic acids by Sphingomonas xenophaga BN6. J. Ind. Microbiol. Biotechnol. 23 (4-5): 391-399. | 12) Buitron G, Quezada M, Moreno G (2004). Aerobic degradation of the azo dye acid red 151 in a sequencing batch biofilter. Bioresour. Technol. 92: 143-149. | 13) O'Neill C., Hawkes F. R., Hawkes D. L., Lourenço N. D., Pinheiro H. M. and Delée, W., 1999. "Colour in textile effluents - sources, measurement, discharge consents and simulation: a review", J. Chem. Technol. Biotechnol., 74 : 10009-1018. | 14) Chen K. C., Wu J.Y., Liou D. J., and Hwang S. C. J., 2003. "Decolourization of the textile dyes by newly isolated bacterial strains", J. Biotechnol., 101 : 57. | 15) Khehra M. S., Saini H. S.,Sharma D. K., Chadha B. S., and Chimni S. S., 2005. "Comparative Studies on Potential of Consortium and Constituent Pure Bacterial Isolates to Decolourize Azo Dyes", Water Res., 39 : 5135. | 16) Sponza D. T., and Isik M., 2002. "Decolourization and azo dye degradation by anaerobic/aerobic sequential process", Enzyme and Microbial Technology, 31: 102-110. | 17) Jirasripongpun K., Nasanit R., Niruntasook J., and Chotikasatian B., 2007. "Decolourization and Degradation of C. I. Reactive Red 195 by Enterobacter sp.", Thammasat Int. J. Sc. Tech., 12 (4). | 18) Carliell C.M., Barclay S.J., Shaw C., Wheatley A.D., Buckley Q.A., 1998. "The Effect of Salts used in Textile Dyeing on Microbial Decolourisation of a Reactive Azo dye", Environ. Technol., 19 : 1133-1137. | 19) Chen K.C., Wu J.Y., Liou D.J., Hwang S.J., 2003. "Decolourization of the textile dyes by newly isolated bacterial strains", J. Biotechnol., 101 : 5 7- 68. | 20) Ambrosio S.T., Campos-Takaki G. M., 2004. "Decolourization of reactive azo dyes by Cunninghamella elegans ucp 542 under co-metabolic conditions", Bioresour. Technol., 91 : 69-75. | 21) Chang J., Chou C., Lin Y., Lin P., Ho J., and Hu T., 2001b. "Kinetic characteristics of bacterial azo-dye decolourization by Pseudomonas luteola", Wat. Res., 35(12) : 2841–2850. | 22) Mabrouk M. E. M., and Hoda H., Yusef., 2008. "Decolourization of Fast Red by Bacillus subtilis HM", Journal of Applied Sciences Research, 4(3): 262-269. | 23) Forgacsa E., Cserhati T., Oros G., 2004. "Removal of synthetic dyes from wastewaters: a review", Environment International, 30 : 953– 971. |