for whom medical therapy is not effective and who have concomitant secondary hyperparathyroidism, subtotal parathyroidectomy is a reasonable treatment option.

Thyroid

THYROID NEOPLASIA AND CANCER

RET Mutations in the MEN1 Syndrome: Is It an Innocent Bystander?

Nadeem M. Rais, MD[1], Anshul Kumar, DM[2], Swetha Jain, MSc[1], Sandeep Kumar Mathur, MD,DM[3], Vinod Scaria, MBBS,PhD[4], Savinitha Prakash, MBBS,PhD[4], Apoorva Joshi, BE[1].
[1]Chowpatty Medical Centre, Mumbai, India, [2]SMS Medical college, Jaipur, India, [3]SMS Medical College, Jaipur, India, [4]CSIR Institute of Genomics and Integrative Biology, New Delhi, India.

MON-509

RET Mutations In The MEN1 Syndrome: Is it an innocent bystander?

Introduction

MENIN and RET mutations in MEN1 families, are rare, and, when they co-exist either mutation may predominate the clinical picture.

We report a family, with both mutations, and, suspect that the RET mutation may not be an innocent bystander.

Clinical Cases

GM (36M): 2009: Presented with skin lesions and a lactotroph adenoma causing chiasmal compression. Treatment: Hypophysectomy and Cabergoline. This resulted in restoration of sexual function and fertility.

2013: Developed hyperparathyroidism [Calcium 10.6mg% (8.5-10.5); PTH 610pg/ml (10-65); MIBG Scan: parathyroid adenomas]. Treatment: Subtotal parathyroidectomy with allotransplant.

2015: Developed Zollinger-Ellison Syndrome [multiple gastric ulcers; S Gastrin: 516pg/ml; (0-180)]. Treatment: Pantoprazole.

MRI Abdomen: Calcific atrophic pancreas and bilateral non-functioning adrenal adenomas.

HM (32M): 2008: Skin lesions and Lactotroph adenoma. Treatment with Cabergoline resulted in restoration of sexual function and a reduction in breast and tumour size.

2013: Hyperparathyroidism [Calcium 10.9mg%; PTH: 166pg/ml; Calcium excretion: 1160mg/24hrs (100-250); BMD: Osteopenia. MIBG ^{123} Scan: Avid uptake in Right Inferior parathyroid gland]. He underwent a subtotal parathyroidectomy with allotransplant.

2015: Recurrent Hyperparathyroidism (Calcium 10.7mg%; PTH: 116pg/ml; MIBG ^{123} scan: Hyperfunction of the transplanted gland). Stable on treatment with Cinacalcet.

Their mother, AM (42F): 1980: Detected to have a lactotroph adenoma when investigated for primary infertility and galactorrhoea. She was treated with Bromocriptine and delivered the boys in 1980 and 1984 respectively. She had recurrent renal calculi and hydronephrosis (? hyperparathyroidism). She succumbed to renal failure following surgery for a benign pancreatic cystadenoma in 1990.

Discussion

Whole exome sequencing of GM and HM showed pathogenic mutations of both, MENIN and RET gene. The precise mutation was a stop gain mutation at exon 3 MENIN.C511T:p.Q171X . They (GM/HM) also harboured a mutation in the RET gene at exon 14 c. G2492T: p.G831V; g. chr10. This may be the first family in which the rare combination of these two mutations has been reported.

The genomics and the clinical presentation suggest that the MENIN mutation predominates in the family, but the presence of bilateral adrenal adenomas in GM are significant on account of RET mutation. The latter may be a harbinger of serious disease in the future. The situation is further compounded by the recurrence of hyperparathyroidism in the allograft of HM. This may be caused due to chance or an unknown genetic/ epigenetic phenomenon in the two MEN mutated genes and RNA

sequencing of the tumour tissue may explain the genetic phenomenon. The latter two events suggest that the RET mutations in MEN1 may not be an innocent bystander.

Neuroendocrinology and Pituitary

CASE REPORTS IN CLASSICAL AND UNUSUAL CAUSES OF HYPOPITUITARISM II

Primary Pituitary Lymphoma - an Unusual Guest in the Sella!

Sumitro Harjanto, MD, MRCP, Dawn Shao Ting Lim, MBBS, MRCP.
Singapore General Hospital, Singapore, Singapore.

MON-237

Background

Primary Pituitary Lymphoma (PPL) is a rare differential diagnosis for a sellar / suprasellar lesion. Less than 40 cases have been reported.

Case presentation

A 75-year old Chinese lady with known subclinical hypothyroidism presented with 3-day history of dull frontal headache, giddiness and diplopia. Incomplete left cranial nerve (CN) III palsy was noted with no other neurological deficit or hemodynamic instability. MRI brain and pituitary showed a T1- and T2 isointense, 2.0 x 1.1 x 1.3 cm enhancing mass arising from the left sellar region, extending to the left sphenoid and cavernous sinuses, displacing the pituitary stalk towards the right, with no optic chiasm compression. There was no imaging evidence of apoplexy.

Evaluation of anterior pituitary hormones revealed hypocortisolism (peak cortisol post 1mcg Synacthen 344 nmol/L, ACTH 3.5 ng/L [10 - 60]), subclinical hypothyroidism (free T4 9.6 pmol/L [8.8 - 14.4], TSH 7.19 mU/L [0.65 - 3.70]), normal prolactin 7.4 ug/L [5.0-27.7], mildly elevated IGF-1 193.7 mcg/L [67.0 - 189.0] with normal GH 1.0 ng/ml, and elevated FSH appropriate for menopause. Glucocorticoid replacement was started.

Though the clinical presentation was not typical of a pituitary macroadenoma, in view of symptomatic improvement and neurological stability, she was conservatively managed with plans for early repeat imaging outpatient.

Patient was readmitted 1 month later for headache and decreased left-sided visual acuity. A complete CN III palsy, and new CN II, IV and VI deficits were noted (orbital apex syndrome). Repeat MRI showed increase in the size of the sellar lesion to 2.6 x 2.1 x 1.3 cm, surrounding the optic nerve and with left cavernous and sphenoid sinus invasion. Again, there was no suggestion of apoplexy. Biopsy of the lesion was performed, and histology was consistent with