Parathyroid Carcinoma Presenting as Genu Valgum

A 11-years-old male child was brought to our hospital with presenting complaints of progressive bowing of legs with mild pain 2 months. Past history and family history were not significant. Vitals and anthropometry were normal.

X-rays wrist showed fraying but no cupping. Investigations showed Ionized calcium level 1.627mol/l (normal-1.12-1.23mmol/l), 24 hour urine calcium 420 mg/day, serum phosphorus 2.9gm/dL, serum alkaline phosphatase 2820 IU, and vitamin D3 level 18.88 ng/mL (normal 11.1-42.9 ng/mL). Abdomen ultrasound showed cystitis. Tubular reabsorption of phosphate was 92 (Max 100- min-82). ABG pH was normal. Ultrasound neck was done for a mass in neck, which showed enlarged parathyroid gland (right) 2.5 cm 1×1.5 cm. To rule out multiple endocrine neophasis syndrome MRI brain and abdomen with contrast was done which revealed no adrenal/pituitary abnormalities. His parathormone level was 1630 pg/mL (normal 10-69). Tc-99m-MIBI static study of the neck/mediastinum showed features suggestive of functioning parathyroid lesion (suggestive of adenoma) in the region of lower pole of right lobe of thyroid. Excision of the adenoma was done. Child developed hypocalcemia symptoms on first post operative day and was treated with parentreal calcium gluconate. He was discharged on 7th POD in good health. Pathologic specimen was found to be parathyroid carcinoma. Subsequently underwent right hemithyroidectomy for the carcinoma. Currently child is doing well and is under orthopedic follow up for corrective surgery.

Childhood hyperparathyroidism is rare. Onset during childhood is usually as a result of a single benign adenoma. Manifestations are usually after 10 years and have an autosomal dominant pattern of inheritance. Parathyroid carcinoma is rare in children, and typically presents with significant hypercalcemia and a palpable neck mass [1]. At all ages, the clinical manifestations of hypercalcemia of any cause include muscular weakness, fatigue, headache, anorexia, abdominal pain, nausea, vomiting, constipation, polydipsia, polyuria, loss of weight, fever and nephrocalcinoisis. Renal calculi may occur and may produce renal colic and hematuria. Osseous changes may produce pain in the back or extremities, disturbances of gait, genu valgum, fractures, and tumors. Bone presentation is very rare [2]. This case gains importance not for its rarity but for the fact that parathyroid carcinoma should also be kept in the back of our mind for onset of genu valgum in an adolescent.

Acknowledgement: Dr Sujatha Sridharan, Professor, Institute of Social Pediatrics, and Dr. Srinivasa Raj, Professor, Department of Pediatric Surgery, Stanley Medical College, Chennai.

M VINODH AND AMUDHA RAJESHWARI
Institute of Social Pediatrics,
Stanley Medical College, Chennai, India.
mv.1981@yahoo.com

REFERENCES

1. Fiedler AG, Rossi C, Gingalewski CA. Parathyroid carcinoma in a child: an unusual case of an ectopically located malignant parathyroid gland with tumor invading the thymus: J Pediatr Surg. 2009;44:1649-52.
2. Menon PSN, Madhavi N, Mukhopadhyaya S, Padhy AK, Bal CS, Sharma LK. Primary hyperparathyroidism in a 14 year old girl presenting with bone deformities. J Paediatr Child Health. 1994;30:441-3.

Congenital Splenorenal Shunt: A Dilemma

We report a two years old girl who was born preterm at 36 weeks with a birth weight of 2.6 kg to a primi mother by emergency cesarean section due to uncontrolled hypertension. Mother's age was 24 years and she was hypothyroid, hypertensive and had Type 2 diabetes mellitus. She was on thyroxine, nifedipine and oral hypoglycemics, which was changed to insulin during pregnancy.

Baby was hypotonic and lethargic. TSH was >100mlU/L. She was started on oral thyroxine and discharged on 7th day of life. At 6 months, baby presented with fast breathing. Heart rate was 180/min, respiratory rate was 68/min and the baby looked flushed. Thyroxin