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CASE REPORT

Fever of unknown origin as a presenting manifestation of craniopharyngioma in a child

Madhumita Nandi[1] and Rakesh Kumar Mondal[1]

Abstract:
An unusual case of cranio-pharyngioma which presented with prolonged fever described here. Investigation revealed that the child was suffering from leaking craniopharyngioma with hypo-pituitarism Fever was due to chemical meningitis following cranio-pharyngioma as evident from the CSF findings. Craniopharyngioma can cause prolonged or recurrent fever due to various reasons [1]. Prolonged fever as the sole manifestation of cranio-pharyngioma has been rarely reported in literature and this is probably first such report in Indian children.

Keywords: Prolonged fever, Craniopharyngioma
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Case report:

A ten years old boy was referred to our institute with history of moderate grade continuous fever for last two months without any other specific complaints. Family history, past histories etc were not contributory. Anthropometrics measurement revealed gross stunting with height of 110 cm (<2SD/age) and weight of 16 kg (<2SD/age) .His weight for height was in between 5th and 10th percentile. His parents' height was within normal limits.

His general physical and systemic examinations were within normal limit. He was investigated for prolonged fever and short stature. Investigations revealed hemoglobin of 12g/dL, total leukocyte count of 12,000/mm^3 polymorph 76%, lymphocyte 20% and eosinophil 0,2 %. Platelet count was 2.8 lacs/ mm^3. Routine urine analysis was normal. Blood and urine culture did not grow any organism. Widal and Montoux tests were negative. Anti-nuclear antibody and rheumatoid factor were negative. Sonography of abdomen was normal. Cerebrospinal fluid analysis showed pleocytosis with 88cells/ mm^3 Neutrophils were 24%, lymphocytes 68%, sugar 72mg/dl,and protein 140 mg/dl.Gram stain and culture of CSF did not reveal any organism.

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Investigation for short stature revealed delayed bone age on radiography (bone age was 4 years in a boy of chronological age of 10 years).Thyroid profile showed secondary hypothyroidism (TSH was 96 IU/L and thyroxine level was 0.9 µg/dl. To look for cause of secondary hypothyroidism X-ray skull was done which revealed sellar calcification and silver bitten appearance and separation of sutures, characteristic of chronic raised intra

cranial tension. Subsequent CT scan showed heterogeneous hyper dense space occupying lesion at the supra-sellar region suggestive of craniopharyngioma with obstructive hydrocephalus. Other relevant endocrinological workup for hypo-pitutarism showed growth hormone level, FSH, LH, ACTH and serum cortisol level within normal limits. Detailed ophthalmological examination including perimetry was within normal limit. After the diagnosis was made the child was referred to neuro-surgery department for surgical intervention.

Discussion:

Our case was hospitalized for prolonged fever. On examination he was found to be having stunted growth. Investigation revealed that the child was suffering from leaking craniopharyngioma with hypo-pituitarism causing stunted growth and prolonged fever. Fever was due to chemical meningitis following cranio-pharyngioma as evident from the CSF findings. Craniopharyngioma can cause prolonged or recurrent fever due to various reasons [1]. It can be due to abscess of the cystic portion of the mass [2], infection of the Rathke's cleft [3] cyst, associated abnormality of thermoregulatory mechanism [4], leaking craniopharyngioma[5]or associated other infections. Leaking craniopharyngioma usually causes recurrent or prolonged fever by chemical meningitis [6,7,8]. Craniopharyngioma usually manifests in children with growth failure, headache and vomiting of raised intra-cranial tension, features of hormonal imbalance, psychomotor retardation, visual disturbance [9] etc. But prolonged fever as an initial presentation of craniopharyngioma is rarely reported in literature. To the best of our knowledge this type of presentation was not reported in Indian children before.

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