

**AN INFANT WITH FAILURE TO THRIVE WITH BROCHOLITIS- A CASE REPORT****Rajesh Kumar<sup>1</sup>, Atul Gupta\*<sup>2</sup> and Jitender Kumar<sup>2</sup>**<sup>1</sup>Medical Officer (Specialist), Regional Hospital, Kullu, Himachal Pradesh, India.<sup>2</sup>District Programme Officer, District Kullu, Himachal Pradesh, India.**\*Corresponding Author: Dr. Atul Gupta**

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**ABSTRACT**

A 5 months old infant presented in pediatric outpatient department with respiratory symptoms. Although born with normal birth weight there was history of decreased weight gain since 1 month of age. On examination she was found to be in failure to thrive (FTT). She was investigated for possible causes of FTT. She was managed for bronchiolitis and nutritional FTT.

**KEYWORDS:** Failure to thrive, malnutrition, recurrent infection.**INTRODUCTION**

Failure to thrive (FTT) is a common problem, usually recognized within the first 1–2 years of life, but may present at any time in childhood. The infants with FTT due to decreased immunity can suffer with recurrent infections.<sup>[1]</sup> Approach to recurrent infections resulting in failure to thrive may include HIV testing, sweat test for cystic fibrosis (if history is relevant), metabolic and endocrinology screening, tuberculosis testing, and stool studies.<sup>[2]</sup> The case discussed here presented to clinician with symptoms of respiratory tract infection. On examination she was found to be in failure to thrive and managed accordingly.

**CASE**

A 5 months old female child complained of cough-wet type for last 10 days. The cough was paroxysmal, associated with post-tussive vomiting with no postural or diurnal variation and no relation to food intake. There was associated respiratory distress in form of fast breathing and lower chest in-drawing. There was no history of fever, cyanosis, suck rest suck cycle, forehead sweating or refusal of feed. Also there were no complaints of polyuria, polydipsia, greasy stools, jaundice, and recurrent ear discharge or skin lesions. She was forth born to a non- consanguineous married couple with term vaginal delivery. Her birth weight was 3.5 kg and had smooth perinatal transition. She was apparently alright well until 1 month of age after which the mother noticed inadequate weight gain, although child was feeding adequately. There was no history of chronic illness, malformations, and similar complaints in family. On examination she had respiratory failure. Her weight was 3.4 kg falling below 3<sup>rd</sup> centile on WHO growth charts (-4.4 Z score), length 55 cm (-4 Z score) and OFC 38.3 cm (-4.2 Z score) suggesting failure to thrive with

microcephaly. Possibilities of bronchiolitis or viral/atypical pneumonia were considered. Child was started on nasal prong continuous positive airway pressure (CPAP) @ 5cm H<sub>2</sub>O, after which respiratory failure improved. Child was started on oral Azithromycin and nebulization with 3% saline. Oxygen was tapered and further evaluation for failure to thrive (FTT) was done. Failure to thrive was considered to be caused due to faulty feeding (diluted feed and inadequate quantity with improper hygiene) and mother was counseled and taught regarding proper feeding techniques. As part of FTT workup TB, HIV infection, Hypothyroidism and TORCH infection were ruled out. An echocardiography done was suggestive of small ASD. Child had coarse, brittle scalp hair, microcephaly and low set ears with subtle facial dysmorphism but USG KUB and X-ray DL spine were normal. Ocular examination, CMV DNA PCR and NCCT (to look for calcification) were normal. Facility for sweat chloride test to rule out cystic fibrosis was not available. In view of persistent oxygen requirement and crepitations on auscultation possibility of secondary bacterial infection was kept and intravenous ceftriaxone was started. Child was tapered to nasal prong oxygen support on day 8 of hospital stay and was made off from oxygen support on day 13 of hospital stay. Ceftriaxone was given for 7 days and child was discharged on oral antibiotics. At the time of discharge child had started gaining weight ~30-40 gm/day. Discharge weight was 3.7 kg. She was active, afebrile, taking well orally, maintaining saturation on room air with no distress and hemodynamically stable. Mother was trained about correct method of preparing feeds / and maintaining hygiene.

**DISCUSSION**

Failure to thrive (FTT) is a term generally used to

describe an infant or child whose current weight or rate of weight gain is significantly below that expected of similar children of the same sex, age and ethnicity. It usually describes infants in whom linear growth and head circumference are either not affected, or are affected to a lesser degree than weight. They usually refer to weight being below the 3rd centile or dropping two major percentile lines over time. FTT can present at any time during childhood but more common in first two years of life.<sup>[1]</sup> It is not a final diagnosis but a description of a physical state; therefore a cause for the FTT must always be sought. Although in most cases the underlying physical cause is not recognized.<sup>[2]</sup> Long term sequelae involving all areas of growth, behaviour and development may be seen in children suffering from FTT.<sup>[3]</sup> Differential diagnoses for failure to thrive include child abuse and neglect, cystic fibrosis, gastroesophageal reflux, growth failure, growth hormone deficiency, and HIV infection.<sup>[6]</sup> A detailed history and physical examination should guide any laboratory or ancillary testing. Most infants and children with growth failure related to environmental factors need very limited laboratory screenings.<sup>[7]</sup> The infant in the present case presented with respiratory infection. Approach to recurrent infections resulting in failure to thrive may include HIV testing, sweat chloride test for cystic fibrosis (if history is relevant), metabolic and endocrinology screening, tuberculosis testing, and stool studies. The child was managed for respiratory symptoms and the parents were counseled for proper feeding.

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