

displayed symptoms and signs consistent with ITS [5]. In one such study [9] of 52 infants with megaloblastic anemia, pallor was present in 96%, skin hyperpigmentation in 77%, developmental delay in 67%, and 43% had hypotonia.

Response to treatment with vitamin B₁₂ in ITS is rapid with improvement in general activity and responsiveness within 48-72 hours. This is followed by the return of social smile and improved appetite. Lost developmental milestones are gradually regained. The tremors begin to subside by the end of first week and disappear completely by 3-4 weeks [2,3]. It follows that infants with vitamin B₁₂ deficiency can present with predominantly hematological (megaloblastic anemia) or predominantly neurological (infantile tremor syndrome) manifestations. Some infants may have purely neurological or purely hematological presentations. Most importantly, evidence of vitamin B₁₂ deficiency has been found wherever it has been adequately looked for. It is, therefore, time to discard the syndrome status for this

disorder, and rename it as 'nutritional vitamin B₁₂ deficiency in infants' as it is known elsewhere in the world.

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Hypervitaminosis D with Dyslipidemia: An Unusual Scenario

Vitamin D plays an important role in calcium homeostasis, and for skeletal growth and bone strength. Vitamin D toxicity may occur at excessively high doses. For many people, the word 'vitamin' implies something that is beneficial and essential, not potentially harmful [1]. We recently encountered an infant with iatrogenic hypervitaminosis D associated with asymptomatic dyslipidemia.

A six-month-old girl was brought to us with fever for one day and one episode of generalized seizure. There was no history of cough, rash, ear discharge, polyuria, polydipsia, constipation, nausea, vomiting or similar such episode. She received two mega doses (600,000 IU each) of oral vitamin D in last two months. Blood counts, kidney function tests, urine examination, blood culture, CSF examination and ultrasonography of the abdomen were normal. Serum levels of 25-OH Vitamin D³ were high (>160 ng/mL) with a normal serum calcium (10.1 mg/dL) and normal serum parathyroid hormone (46 pg/mL). We incidentally sent her serum lipid profile, which revealed high

TABLE I LIPID PROFILE OF THE PATIENT

Parameter	Results	Reference range [2]
Total Cholesterol	123 mg/dL	106-186
Triglycerides	403 mg/dL	65-234
HDL Cholesterol	27 mg/dL	24-84
VLDL Cholesterol	81 mg/dL	0-30
LDL Cholesterol	15 mg/dL	34-111

triglycerides (403 mg/dL), normal total cholesterol (123 mg/dL), and high VLDL cholesterol (81 mg/dL). The lipid profile of parents and other siblings were within normal limits. Secondary causes of hyperlipidemia were ruled out.

Vitamin D receptors are found ubiquitously, including in adipose tissue, and 25(OH)D plays an important role in lipid metabolism via several mechanisms, including induction of an increase in lipoprotein lipase activity [3], increased lipogenesis and lipolysis, and enhanced intestinal calcium absorption, which could reduce the formation of calcium fatty soaps in the gut and increase the absorption of fat. In a recent report [4], cholesterol and triglyceride levels were found to be increased in an adolescent following vitamin D treatment. Similar findings in adults have been reported earlier [5].

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Teaching and Assessing Clinical Reasoning Skills

The recent article titled “Teaching and Assessing Clinical Reasoning Skills” is the need of the hour, and is in the best interest of medical training [1]. Though the authors have extensively described about the Dual processing theory to improve the clinical reasoning of clinicians, teaching the same from the initial years of medical training may fetch the goal more effectively; the following discussion will further strengthen the above concepts [2].

Though many factors discussed pertain to poor clinical reasoning and lack of clinical skills, one important concern is the inadequate knowledge and understanding of the basic anatomy and physiology of an organ with relevance to a case scenario by the student. Since the medical subject is vast unless the basics are repeatedly taught in a similar style it will not get registered in the minds of the young doctors (*e.g.* instead of human heart being depicted with various illustrations over the years, a simple typical diagram can be followed from the beginning). If basics are forgotten, effective clinical problem solving is too difficult to practice in later years.

Since there is a gross mismatch between the perspectives of the educator and the student, didactic lectures can be curtailed, and each student may be exposed to the variety of clinical cases during the training. The clinical training should include both common and rare cases. Clinical examinations based on “Long case” alone may not improve the clinical reasoning

skills. Clinical problem solving exercises serve as a good model to improve the clinical skills of the student. The analytical approach and the interactive discussion will enhance the skills of both the faculty and the student if both of them are unaware of the diagnosis. The interactive discussions between the educator, postgraduates and undergraduates during the grand rounds will improve the clinical skills of the students since the cases are presented randomly without prior exercise. Such grand rounds should be encouraged in all the medical institutions, so that a student can be given an opportunity to improve the reasoning skills from the early years of medical training [3].

The authors have mentioned multiple methods to evaluate the student during the final examination but all these should be practiced in a programmed manner from the early years of medical training to enhance clinical reasoning skills [4].

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