HYPOTHYROIDISM-ASSOCIATED RHABDOMYOLYSIS

Sir,

Although muscle involvement is common in hypothyroidism, rhabdomyolysis due to hypothyroidism is rare and only a few cases have been reported.\(^1\text{-}^5\) We describe a patient with rhabdomyolysis due to hypothyroidism.

A 39-year-old male presented to our hospital with complaints of generalized weakness, giddiness, generalized swelling of the body, insomnia and restlessness. The patient had generalized weakness and giddiness of 2 months duration for which he consulted a local general practitioner who diagnosed him as having eosinophilia and started a course of diethylcarbamazine (DEC). As the symptoms worsened, he consulted another physician who started him on alprazolam along with the DEC regimen. His symptoms did not improve and he developed insomnia, restlessness and vivid dreams for which he came to the present hospital. On further questioning, the patient also reported tingling and numbness of the limbs since 1 month. There was no history of weight gain or muscle pain. He was a tailor by occupation and consumed alcohol occasionally. There was no family history of thyroid diseases and neuromuscular or autoimmune diseases. There was no pedal edema and the skin was normal in appearance. His bodyweight was 76 kg. There were generalized sluggish deep tendon reflexes. The nerve conduction test showed signs of bilateral carpal tunnel syndrome. Electrocardiography has shown borderline first-degree heart block. Laboratory investigations showed elevated TSH and low T3 and T4 values. The creatinine phosphokinase (CPK) level was also grossly elevated [Table 1]. Cardiac evaluation did not show any significant abnormality. The patient was diagnosed as having hypothyroidism associated with rhabdomyolysis. The patient was treated with thyroxine 150 µg daily along with multivitamin supplements. After 2 months of treatment, his symptoms and laboratory parameters (CPK, T3, T4 and TSH) became normal [Table 1].

The present case describes a patient with rhabdomyolysis due to hypothyroidism. Other known causes of rhabdomyolysis include collagen diseases, intake of massive amounts of alcohol, vigorous exercise, trauma, infections, seizures, medications like statins and electrolyte imbalances. If severe, rhabdomyolysis may be life threatening, especially when it is complicated by multiple organ failure. Muscle involvement is common in hypothyroidism and its myopathy is usually manifest with delayed relaxation of tendon jerks, proximal muscle weakness, myalgia and cramps. But, rhabdomyolysis is quite rare. Only a few cases of rhabdomyolysis due to hypothyroidism have been reported.\(^1\text{-}^5\) The present case describes a patient suffering from rhabdomyolysis due to hypothyroidism, with no other precipitating factor. Diagnosis of rhabdomyolysis was carried out based on muscle weakness, grossly elevated CPK and elevated serum creatinine.

The exact cause of rhabdomyolysis in hypothyroidism is unclear, but both impaired glycogenolysis and impaired mitochondrial...
oxidative metabolism may be responsible.[4,5] Hypothyroidism should be considered as one of the causes of rhabdomyolysis. Rhabdomyolysis manifests with muscular symptoms and severely elevated serum levels of muscle enzymes. Thyroid hormone replacement therapy improves thyroid and renal functions and reverses rhabdomyolysis.

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REFERENCES


PARACETAMOL INDUCED ANGIOEDEMA

Sir,
I have read with keen interest the case report of a 4-year old boy who supposedly developed angioedema due to paracetamol.[1] The authors have attempted to justify with reasons that the angioedema was most likely due to paracetamol. The patient was treated for presumed viral infection; yet, the viral infection was not considered a possible cause of the angioedema. The fact that the reaction occurred within an hour of receiving the first dose of paracetamol and that it happened on just a single occasion made the reaction acute angioedema.[2] The commonest cause for a single isolated attack of angioedema is probably viral infection. Viruses are usually blamed because immune response to environmental microbes may take an odd course to produce angioedema. This explanation is thought to be likely when this kind of reaction occurs in children.[2]

A good past medical and drug history is a cornerstone to preventing and managing adverse drug reactions.[3] Unfortunately, it was not properly explored in the patient. A previous report of hypersensitivity to paracetamol has shown a high incidence in children with personal/familial history of atopy or previous reaction to non-steroidal anti-inflammatory drugs (NSAIDs), acetylsalicylic acid (ASA) and antimicrobials.[4] One wonders if this was the first episode of fever in this patient’s lifetime. If not, how were they treated? Previous fever episodes were likely to have been treated with paracetamol or NSAIDs. Self-medication is a recognized problem in India[5] and other developing countries.[6] Paracetamol remained one of the most commonly self-medicated medicines for children and the medicine mostly kept at home by parents,[6] therefore the likelihood of use of paracetamol or other medicines with potential for hypersensitivity...