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Case Report

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A postpartum rhabdomyolysis patient due to hypothyroidism

Summary

Hypothyroidism can often cause muscle stiffness, cramps, myalgia and elevated muscle enzyme levels. However, rhabdomyolysis due to hypothyroidism during the postpartum period is rare. In this article, we aimed to present postpartum rhabdomyolysis due to hypothyroidism in a 24-year-old woman 8 months after birth.

Keywords: hypothyroidism, rhabdomyolysis, postpartum, woman, exercise, lipid-lowering medication, chronic renal failure, epigastric pain, malaise, levothyroxine, biochemical values

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Introduction

Rhabdomyolysis is one of the rare complications of long-standing hypothyroidism. Symptoms of the musculoskeletal system have been reported in 30% to 80% of patients followed for hypothyroidism. In many cases predisposing causes have been identified for the development of myopathy. Among these, exercise, lipid-lowering medication and chronic renal failure were the most reported.[1–3]

Case presentation

A 24-year old woman was admitted to Hospital Emergency with epigastric pain,dark ürine, severe malaise. The patient vital signs were regular. On examination she had epigastric and left suprapubic pain. The other systemic examinatıon were normal. There was hypothyroidism in her resume. However, she was to stop use levothyroxine after delivery. The patient had only 30 minutes of light exercise 1 hour before the emergency application. The patient was diagnosed biocemically (Table 1) and clinically as rhabdomyolysis and was started %0,9 NaCl from 500cc/hour. When the etiology of rhabdomyolysis was investigated, it was found that the patient had subclinical hypothyroidism (Table1). The patient was initiated low-dose levothyroxine therapy and went up to 75 micrograms / day. Patients were discharged with patient-mediated levothyroxine therapy, whose thyroid function tests returned to normal and clinical and biochemical rhabdomyolysis improved. After discharge, the biochemical values of the patient who came to the polyclinic control were completely normal.

Table 1 The laboratuvary results of Pre and post-treatment of levothyroxine in patient with rhabdomyolysis

Laboratuvary value	Pre-treatment of levothyroxine	Post-treatment of levothyroxine
TSH(n;0,35-4.95microIU/ml);	20	5
FT4(n;0,7-1.48ng/dl);	0.84	1.05
Creatinine (n;0,51-0,95mg/dl)	0.81	0.87
AST (n;0-41u/l)	1301	13
ALT (n;0-54u/l)	268	13
Sodium (n;135-145mmol/l)	138	145
Potassium (n;3.5-5.2mmol/l)	3.99	4.6
LDH (n;0,05-248u/l)	2316	157
CK(creatine kinase) (n;0-145ıu/l)	105500	54
Hemoglobinuria	+	-
Proteinuria	++	-

Discussion

In our report describes a case of rhabdomyolysis due to postpartum hypothyroidism. Diagnosis of rhabdomyolysis was based on the severe myalgia, muscle weakness,marked elevation of serum CK with patient's history. As a cause of rhabdomyolysis, disorders such as collagen dissease (e.g. polymyositis), infection, ingestion of massive alchol and the other drug agents, trauma or congenital deficiency of muscular enzymes were excluded. The clinical spectrum of hypothyroid myopathy is varied.Delayed relaxion of tendon jerks and proximal muscle weakness correlate with bıochemical severity of hypothyroidism.[4] Rhabdomyolysis is,however, quite rare.[5] Most of the cases were precipated with excersize or trauma.[6,7] Abnormal carbonhydrate, protein and lipid metobolism of hypothyroid muscle might increase the rhabdomyolysis risk during light excersize.

Conclusion

In conclusion, high levels of muscle enzymes, finding of rhabdomyolysis in a young patient may be related to hypothyroid myopathy. Adequate therapy with thyroxine leads to recovery like this patients.

Acknowlwdgements

None.

Conflict of interest

The author declares there is no conflict of interest.

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