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HYPOTHYROIDISM PRESENTING AS PITTING EDEMA – A RARE PRESENTATION

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ABSTRACT

Hyperthyroidism is usually presented as non pitting type of edema. Pitting edema can be found in a hypothyroid patient due to heart failure. But pitting edema in a case of hypothyroidism without heart failure is very rare.

INTRODUCTION

In hypothyroidism chondroitin sulphate, mucopolysaccharides and hyaluronic acid and is deposited in dermis. This will give rise to non pitting type of edema. Pitting edema in hypothyroidism is rare and pitting edema is due to decreased adrenergic (vasoconstrictor) tone and increase serotonin (vasodilator) metabolism which lead to increased capillary permeability, Hypothyroid patients are prone to develop heart failure, which eventually develops in non pitting type of edema. We describe a

case where a hypothyroid patient which is not associated with heart failure but still has pitting edema.

Case Report

A 35 year old female admitted to IMS & SUM Hospital with generalized swelling over body for last 15 days. She is having history of constipation, hair fall, cold intolerance since last 10 years. On clinical examination her vitals were stable and there was presence of pallor and pitting edema. JVP was not raised and there was no

hepatojugular reflex. Her systemic examination reveals no abnormalities. Her investigations shows Hb- 7.4 gm/dl, serum iron – 34 microgram/do, serum ferritin –176 ng/ml, TIBC- 287.5 microgram/dl, serum albumin – 3.6 gm/dl, stool examination for occult blood – negative, peripheral smear comment shows Normocytic normochromic RBC, reactive lymphocytes present. Normal urine examination, serum creatinine – 0.90 mg/dl. Echo report was normal. Thyroid function test shows FT3- 0.36 pg/ml, FT4- 0.083 ng/dl, TSH >100 microIu/ml. Tab THYROXINE was started with 50 microgram and increased gradually to 100 microgram over 15 days. Oral iron was given for anemia. On follow up after 3 months, her pedal edema disappeared and anemia improved.

DISCUSSION

Common cause of pitting edema is nephrotic syndrome, hypoalbuminemia, cirrhosis of liver and heart failure [1]. These diseases are excluded by clinically and thorough investigation. Again her thyroid profile suggest she is having hypothyroidism. Though non pitting edema is commonly found in hypothyroidism [2], pitting edema is very rare in hypothyroidism in absence of heart failure [3]. Pitting edema in hypothyroidism is though rare and can occur

due to increased capillary permeability, decreased adrenergic (vasoconstrictor) tone and increase serotonin (vasodilator) metabolism [4-6].

SUMMARY

Pitting edema though rare can be a differential diagnosis and to be ruled out if common cause can't explain the etiology.



Figure 1: Pitting pedal edema



Figure 2: Facial puffiness Peri orbital edema

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