



## Hypothyroidism Presenting As Sever Ichthyosis and Acanthosis Nigricans

Authors

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### Background

Hypothyroidism is a common condition with various cause but autoimmune disease and thyroid failure following <sup>131</sup>I or surgical treatment of thyrotoxicosis account for over 90% of cases, except in areas where iodine deficiency is endemic.

*Thyroid disorders are known to cause a wide range of skin manifestations.* Both hypothyroidism and hyperthyroidism are known to cause skin changes. *Hypothyroidism causes changes in the skin, hair and nails.* Many skin disorders like vitiligo, melasma, alopecia areata, xanthelasma palpebrarum, are found to be associated with hypothyroidism. Hypothyroidism is generally associated with thick, dry, cold and pale skin. Thyroid hormones have been shown to be necessary for the initiation and maintenance of hair growth and normal secretion of sebum. The dryness may be so severe that it may resembles an acquired ichthyosis. The most classical cutaneous finding of hypothyroidism is generalized myxedema, where the skin typically appears doughy, swollen, and waxy to touch. Hair of the scalp and body is classically dry, coarse, and

brittle. The rate of nail growth is slowed, and nails become brittle.

### Case Report

A 25 year old man from Darbhanga Bihar was referred to our department from Dermatology department with complaints of generalized dry and scaly lesion of skin for 2 year duration .The cause behind referral was that patient was drowsy and not following any instruction properly. The skin changes was progressive. The lesion was non pruritic. There was no any remarkable past and family history. On examination he was obese (BMI :30) and drowsy. There was generalized non erythematous scaly skin changes were seen (fig 1,2,3). His vitals was BP 130/100 mm of Hg, pulse rate 80/min. normal sinus rhythm, heart sound was muffled, respiratory rate was normal. The deep tendon reflexes was diminished. Thyroid gland was not enlarged. All other physical examination was unremarkable. Investigation revealed Hemoglobin of 7.6g/dl(normal 11-16), MCV 108fl (normal 80-99.9) MCH 39.6pg (normal 27-32), MCHC 36.7g/dl(normal 32-36), PCV 22.2% (normal 35-49), TLC and platelet

count was normal, Sr.TSH 150 uIU/ml (normal .25-5.0uIU/ml), serum free T3. 41pg/ml (normal 2.1-3.8pg/ml), serum Free T4. 15ng/dl (normal .82-1.63ng/dl). Anti-thyroid peroxidase antibodies were found in his serum. The serum ferritin level was normal. All other blood test was normal. In chest x-ray pa view pericardial effusion was seen. Echocardiography shows moderate pericardial effusion. The physical examination and investion was sugesstive of autoimmune hypothyroidism. He was put on thyroxin .Figure 4,5&6shows the skin lesion after 15 day of initiation of treatment.



**Fig. 3**



**Fig. 1**



**Fig. 4**



**Fig. 2**



**Fig. 5**



**Fig. 6**

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