

PP03

Myxoedema coma secondary to severe hypothyroidism

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Abstract

Introduction: Myxoedema is a medical emergency associated with a high mortality rate. It is a rare presentation of severe hypothyroidism and salient features usually seen include Decreased Mental Status, Hypothermia. Other features like Bradycardia, hypotension, hypoglycaemia, hypoventilation, signs of cognitive impairment like confusion, agitation, disorientation, and even psychotic features could be seen. Precipitants like alcohol, sedative drugs, MI, sepsis, exposure to cold may also result in severe hypothyroidism; hence effort should be made to reverse precipitating factors rapidly.

The incidence of Myxoedema Coma is very low in developed countries as there is improved diagnosis and treatment; early, aggressive treatment is necessary due to the high mortality rate (30–60%). Groups of patients at risk include elderly patients, those with a compromise cardiovascular system, reduced consciousness, sepsis etc. usually have a poorer outcome. Mainstay of treatment is thyroid hormone therapy, supportive-reversal of precipitating factors. Adrenal insufficiency should be excluded; glucocorticoids are given to the patient.

Case report-discussion & results: I present an 89-year-old woman who presented with Back Pain, Confusion following opioid medications prescribed by the GP. However on admission, there was hypothermia, hypotension with cold peripheries, pedal discolouration and ulceration, pitting oedema. The patient was initially managed for pneumonia, acute kidney injury secondary to poor intake. Patient was rehydrated and placed on antibiotics. ECG, Transthoracic Echocardiography, Chest X-Ray, Blood tests, Brain CT showed nil tumour or acute changes. CT TAP showed nil malignancy or bony changes.

Few days following admission to the ward, patient tested positive for COVID and was isolated. Following COVID Stepdown, the patient developed altered sensorium, hypotension, and seizures. Lactate was high, EEG showed nil evidence of encephalitis. A confusion screen which

included Thyroid Function Test (TFT) was requested. The lab called in a few hours later due to a very high level of TSH (63) and low T4 (5.1) and Levothyroxine was commenced. Referral was made to the endocrinologist. Gentle rewarming using blankets with the room heater at room temperature was done and the patient was also placed on antibiotics. Relatives were updated as events evolved, and diagnosis changed with time. Repeat TFT showed that the TSH level increased and there was clinical worsening of the patient's mental state. A diagnosis of Myxoedema coma was made.

Conclusion: A low threshold for requesting investigations like TFT, especially in at-risk patients and a high index of suspicion is required clinically. Could Covid have contributed to the precipitating factors? A referral was made to the Palliative Care Team. There was good multidisciplinary team input with relatives updated from time to time with mention of limited prognosis.

Keywords: *myxoedema; hypothyroidism; Covid; clinical features*

References

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