MYXOEDEMA AND SUCCESSFUL PREGNANCY

(A Case Report)

by

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Pregnancy is rarely encountered in patients of myxoedema because the clinical syndrome of myxoedema is usually accompanied by sterility and its development usually occurs after the child bearing period. Even when pregnancy occurs in hypothyroid patients it usually terminates in abortion. A very small number of cases of cretins or of myxoedema carrying to term have been reported. The following report presents a case of established myxoedema, who conceived after a very short irregular and inadequate treatment and continued pregnancy without any thyroid treatment thereafter for a successful delivery at term.

CASE REPORT

Mrs. A. S, aged 23 years, was first seen in June, 1974 and was diagnosed as a case of myxoedema. Referred from the skin outpatients department, where she seeked advice for her skin condition, she was admitted into the medical ward of Calcutta National Medical College and Chittaranjan Hospital, Calcutta on 18th June, 1974 with a history of dryness of the skin, fall of scalp and eyebrow hair, tiredness, lethargy, anorexia and swelling of the legs and the whole body for last 2-3 years. She also complained of muscleaches and stiffness, She was married for 5 years and para 0 + 1, the pregnancy ending in an abortion 2½ years back.

Menstrual History. Her menarche occurred at the age of 14 years and cyclic bleeding occurred thereafter regularly every month lasting for 7-8 days. For last 3 years she was having excessive periods every 2-3 weeks lasting for about 10-12 days, particularly following her abortion. A diagnostic curettage on the twentieth day of the cycle showed uterine mucosa in the proliferative phase. Her past history suggested that for last 5 or 6 years she used to be pale and weak. Her family history was non-contributory.

On examination she was of slow intellect and mentally apathetic and listless to her works and environment. She also had slow speech and marked memory defects but history of psychiatric reactions were absent. Her height was 153 cm. and weight 60 kg. Her face was round and pale with periorbital puffiness, skin dry and rough and finger-nails ridged. The voice was husky. Scalp hair was coarse and dry with some loss of hair of eyebrows. Secondary sexual characters were present—axillary and pubic hairs with well developed breasts. Thyroid gland was not palpable and examination of heart, lungs and abdomen revealed no abnormality. Her pulse rate was 70 per minute; blood pressure 115/70 mm. of Hg. Laboratory studies revealed the following results; haemoglobin 8 g. per 100 ml. of blood, red blood cell count 3.4 millions per cmm., total leucocyte count 600 per cmm. and differential leucocyte count within normal range. The erythrocyte sedimentation rate was 6 mm. in the first hour. Fasting blood sugar was 84 mg. per cent, blood urea 16 mg. per cent and serum cholesterol 289 mg. per cent. Creatine phospho-

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kinase level in the serum was 7.2 microgrammes phosphorous per hour per ml. and serum glutamic oxalacetic transaminase level was 60 Karman units per ml. The B.M.R. was -28 per cent and protein-bound iodine 2 microgrammes per cent. Tracer studies with radio-iodine showed an I^{131} uptake of 9.88 per cent after 24 hours (Fig. 1). Achilles reflex time by photomotography was 560 milliseconds (Fig. 2). Ophthalmoscopy revealed no abnormality or restriction of visual fields and and EEG record showed no other abnormality except low amplitude waves. ECG was normal and chest X-ray findings were non-specific. In view of the history, physical findings and the results of laboratory investigations it was apparent that this patient was suffering from adult hypothyroidism and was advised to take 0.1 mg. L-thyroxine daily. She was discharged from the hospital on 30th July, 1974 and asked to report to the out-patients' department for control examinations.

However, she did not turn up for check-up or control examination and was only seen for the second time after one year when she came to our obstetric emergency on 10th August, 1975 noon with labour pain carrying term pregnancy, her last menstrual period being on 9th November, 1974. During this period she related that she had taken the drug (L-thyroxine) for about five months but that also very irregularly, on and off and stopped taking the medicine completely thereafter following her first missed period. She also stated that during the past 7 or 8 months she became more tired and lethargic and was very much sensitive to cold. Her voice had turned hoarse with a very dry skin. She also had an episode of vaginal bleeding when she was 2½ months pregnant which lasted for about 8-10 days and was treated at her home by a family physician with bed rest and sedation, who did not advise her to restart the thyroid medication. On examination her blood pressure was 135/90 mm. of Hg., pulse rate 92 per minute with severe pallor and mild pitting oedema of the ankles. Urine contained trace albumin. Obstetrical examination revealed that she was in early labour with vertex presentation and good foetal heart sounds. On the same day she delivered a living healthy male baby weighing 2.7 Kg. Her confinement was spontaneous with a slight perineal tear which was repaired immediately. She could not nurse her infant because of failure of lactation. She was not given any thyroid treatment at that time for a reassessment of the state of her thyroid function. At the end of September, 1975, six weeks after delivery she had a second examination of her thyroid gland function which again revealed gross thyroprivic hypothyroidism. Her B.M.R. was -22 per cent, PBI 1.9 microgrammes per cent and serum cholesterol 321 mg. per cent. Radio-iodine tracer studies with I^{131} showed the following results: second hour uptake 7.60 per cent, 24 hours uptake 8.78 per cent and 48 hours PBI^{131} 0.07 per cent. Scintiscanning of the thyroid showed a small sized atrophic gland with patchy uptake of I^{131} (Fig. 1). Achilles reflex time by photomotography could not be recorded because of loss of ankle jerks (Fig. 2) due to gross hypothyroidism.

Thyroid treatment with 0.1 mg. L-thyroxine was reinstituted and till this date the patient improved a lot from her hypothyroid state. She is now under follow-up with thyroid treatment at our out-patients' department and the baby is keeping well till this date.

Discussion

Review of literature shows that the total number of reported cases of untreated hypothyroidism associated with pregnancy is very limited. Ten cases were reported before 1943 when Parkin and Greene added 6 of their own. Additional single cases were reported by Hodges *et al* (1952), Zondek (1953), Bruck and Kerr (1954) and Lister and Ashe (1955). Bercovici and Ehrenfeld added 2 cases in 1959. Information about further case reports after 1959 till this date is lacking.

The case presented here was diagnosed as myxoedema on the basis of the patient's history, clinical features and the results of laboratory investigations. The serum cholesterol was high with a low B.M.R., PBI value and radio-iodine uptake. A border line rise of the values of CPK and SGOT in serum can probably explain the abnormalities of muscular function like muscle aches and stiffness, found in patients of myxoedema (Williams

1974). Achilles reflex time by photomotography also revealed slowing of tendon jerks and endometrial biopsy revealed anovulation. The fact that pregnancy occurred at all in this patient indicates that the myxoedema was of primary variety, as women suffering from pituitary myxoedema do not become pregnant. She had primary infertility for about 2½ years following her marriage and conceived thereafter, the pregnancy ending in an abortion at about 12th week, both being typical of myxoedema. After about 2½ years of secondary infertility following her abortion she was first seen and diagnosed as a case of myxoedema and underwent an inadequate, irregular and very short period of treatment. She conceived again after about 4½ months after we diagnosed her as myxoedema.

Summary

A rare case of longstanding myxoedema inadequately treated for a very short period after diagnosis, in whom pregnancy occurred, is reported. The patient had a period of relative infertility and one abortion before the diagnosis. The second pregnancy occurring after diagnosis continued without any thyroid hormone substitution only with a threat to abortion and the patient was delivered of a healthy child at term. Re-institution of thyroid treatment after puerperium controlled her condition adequately. The effects of hypothyroidism on pregnancy are discussed with review of literature.

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See Figs. on Art Paper VI