

PITUITARY FIBROSIS WITH MYXEDEMA

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In 1914 Simmonds¹ described a syndrome of severe cachexia, premature senility, loss of hair, pigmentation of the skin, amenorrhea and weakness. Patients with this syndrome showed destruction of the anterior lobe of the pituitary, fibrosis of the thyroid and ovaries, atrophy of the adrenals, parathyroids and endometrium, and mitrosplanchnia. About 75 cases of this syndrome have been reported. Silver's² recent article on the subject is an excellent review. One of the most striking features of the syndrome is the extreme grade of cachexia, without which the condition is not diagnosed.

We have recently studied a case that was believed clinically to be one of myxedema but which showed pathologically all the findings seen in Simmonds' disease except the cachexia.

REPORT OF CASE

A 48 year old Italian housewife entered the hospital Dec. 1, 1936, complaining of pain in the legs and left wrist of two months' duration.

Ten years before admission, when she was 38 years old, she had a sudden onset of amenorrhea without attendant symptoms. Prior to this time she had had normal, regular catamenia. After this time she had no bleeding. During the ten years prior to her admission to the hospital she failed in general health, and there was vague gradual development of the symptom complex to be described. She stated that her skin grew progressively drier and coarser over a period of nearly ten years and that over a period of about two years it had shown scaling. For about five years she noted slow gradual loss of strength and enterprisic development of a placid disposition and rare bouts of nervousness and irritability. Four years before she entered the hospital she first noted severe headache, most marked on the left side of her head, which had no definite relation to eyestrain, food or other factor. During the past year she noticed loss of appetite and restricted her diet largely to carbohydrates. She also noticed that the constipation with which she had been troubled for years was becoming more marked. Two months before examination she first noticed definite pain in the bones, joints and muscles

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1. Simmonds, M.: *Deutsche med. Wchnschr.* 40:322, 1914.
2. Silver, S.: *Arch. Int. Med.* 51:175, 1933.

of her left arm and legs. For many years she had had bouts of pain in the spine, arms and legs, apparently mild. She did not describe these attacks accurately but attributed them to her insomnia and loss of strength.

"Rheumatism" had been present intermittently since the age of 15. She was well developed, well nourished and in no discomfort. The skin over all the extremities was atrophic, dry and scaly; also, to a less degree, that over the trunk. The hair was dry and coarse. The gums were inflamed. There was questionable hicken pianus of the mouth. The heart sounds were of only fair quality. The cardiac rate varied from 54 to 58 beats per minute. The blood pressure was 160 systolic and 100 diastolic. Pelvic examination showed an atrophic cervix.

The urine was normal. The blood showed 4,500,000 red cells and 5,500 white cells per cubic millimeter. The hemoglobin content was 85 per cent. The differential white cell count showed 67 per cent polymorphonuclears. The Hinton test was negative. The basal metabolic rate was -28 per cent. The blood showed cholesterol 374, calcium 9.85 and phosphorus 4.2 mg. per hundred cubic centimeters, and phosphatase 6.44 Bodansky units. Analysis of the gastric content showed free hydrochloric acid. The nonprotein nitrogen of the blood serum was 18 mg. per hundred cubic centimeters. A lumbar puncture gave negative results. An electrocardiogram showed normal rhythm, a rate of 72 and tracings consistent with myxedema.

The patient was believed to have myxedema, and thyroid extract was administered by mouth. She became nauseated and vomited. On the fourteenth day she was given thyroxin U. S. P. intravenously. Her drowsiness increased, and on the nineteenth day a psychosis developed. All the extremities were active-spastic, although no other neurologic signs were present. The reflexes were pseudo-refused to speak, move or eat, and on the twenty-second day her temperature became elevated. During this period the signs of myxedema disappeared, the temperature remained elevated between 102 and 105 F., rales developed in both lungs, and death occurred on the thirtieth day.

Autopsy.—The pertinent gross observations were as follows:

The body was that of a small, well developed and well nourished 48 year old woman weighing approximately 115 pounds (52.1 Kg.). The skin was only slightly roughened, especially over the arms, and was not darkened or pigmented. The mucous membrane on the inner aspects of the cheeks was grayish white, glistening and smooth. The abdominal subcutaneous fat was bright yellow and measured 4 cm. in thickness. The muscles appeared normal. The thyroid was small, weighing 4.8 Gm. The surface was grayish pink and smooth. The tissue cut with increased resistance, and the cut surface measured approximately 3 by 2 with no colloid definitely discerned. Each lobe measured approximately 3 by 2 by 0.7 cm. Three normal-sized parathyroid glands were found. The lungs showed numerous foci of bronchopneumonia. The heart was small, weighing 175 Gm. The spleen weighed 125 Gm. The adrenals were very small, together weighing 5 Gm. On section there was marked narrowing of the cortex and medulla, the former measuring approximately 1 mm. The kidneys weighed 150 Gm. and were normal. The uterus was small and atrophic. The myometrium was narrow, measuring from 6 to 7 mm. in thickness. The endometrium was grayish white, smooth and very thin. Both ovaries were atrophic, together weighing 4 Gm.; on section no follicles were visible. The brain weighed 1,200 Gm. and showed normal convolutional markings. The stalk of the pituitary was normal. The whole gland, however, which was removed with the surrounding dura, was