

3. Nursing Care in Addison's Disease

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The comparative rarity of Addison's disease makes it difficult for a nurse to acquire any special experience in its care unless she happens to work in the metabolism department of one of the larger medical centres. It is a remarkable experience to help in bringing these patients from the depths of the dangerous crisis back to comparatively good health. In previous years most of the patients did not survive the crisis. Now improved methods of treatment save many patients from the crisis, and an opportunity is afforded to study the patient as he is gradually brought back toward health. It was not until 1932 that a report of Addison's disease appeared in *The American Journal of Nursing*. This is perhaps not surprising since it is only in recent years that patients have survived long enough to need nursing care.

The newer methods of treatment place emphasis upon careful observation of the patient and accurate attention to the details of medical treatment. Nursing care in Addison's disease, as in diabetes, is of the highest importance.

In this condition the nurse has five major responsibilities.

1. *Protect the patient from all influences which may tax his waning strength.* He should be moved about as little as possible. If he is in coma on admission, it may be advisable to put him to bed without changing his clothes. He should not be bathed. He should be covered with blankets to conserve body heat. The room should be quiet. Inquisitive and conversational relatives and hospital employees must be excluded from the room. The patient should not be engaged in conversation if he enters in a conscious condition, nor should he be weighed or sent in a wheel chair or his bed to various laboratories for tests. He should be kept in bed at absolute rest until specific orders are given that he may be up. The nurse assists at the brief examination conducted by the physician on entry. Insulin, thyroid, and strong sedatives such as morphine are dangerous and should not be given.

2. *See that treatment is promptly and efficiently carried out.* Addisonian crisis is the most serious of medical emergencies. A tray should be available with the necessary syringes, tubes and apparatus. The necessary solutions for treatment should be obtained at once. The physician will draw blood for chemical determinations and will probably administer at once five or ten per cent. glucose in physiological saline solution. He may give a thousand cubic centimetres four to six times in the first twenty-four hours. Sufficient amounts of adrenal cortex extract must be conveniently available.

3. *Observe the patient during the periods when he is not under the physician's eye, and report any important changes.* Loss of consciousness, falling blood pressure, a more feeble, more rapid pulse, or a return of vomiting and diarrhoea, may require the physician's immediate attention and the resumption of intensive therapy.

4. *Win the patient's confidence and co-operation as he improves.* A patient with Addison's disease is apt to be hypercritical, irritable, and emotionally unstable. He is often apprehensive and "hard to please". Here a knowledge of psychological nursing is valuable, for the patient will respond better in every way if encouraged sympathetically. Yet he must be made to realise that careful adherence to treatment is necessary. Friendliness, kindness and sincerity are essential. The emotional drives of the patient usually should not be restrained, but intelligently directed. In this way the nurse may make a definite contribution to treatment. At a later stage of recovery, occupational therapy of light sorts may be permitted by the physician, and directed by the nurse.

5. *Ensure the proper diet and salt intake.* These patients are always dietary problems. On entry they may be unconscious or vomiting, and water, salt and glucose may be given intravenously for one or several days. When the patient can take soft food and fluids, an effort should be made to start the high sodium chloride intake, by use of salt from a shaker and also by giving salt in tablets unless they cause nausea. Sodium citrate, 5 grams twice daily in 200 cubic centimetres of orange juice, will increase the sodium intake. Many Addison's patients like salt and seem actually to crave it; others take high salt diets with difficulty.

The low potassium diet requires that bread, sugar and cereals be limited to the highly refined products; milk, meat, fruit, vegetables, condiments and certain beverages are also restricted, as is the cooking of meat and vegetables in large amounts of water. The diet is unpalatable and fortunately is seldom necessary when adequate salt and adrenal cortex hormone treatment are used.

Patients with Addison's disease are apt to have capricious appetites, so their trays should be attractively served and meals spaced to the hours when the patient prefers to eat. A high-calorie, high-carbohydrate diet, with high vitamin intake, especially of vitamin C, is desired.

In a metabolism ward the nurse may be entrusted with certain observations important in the study of the disease. In the crisis, blood pressures are recorded hourly. Daily blood pressures are charted as the patient improves. Accurate fasting weights are recorded when the patient's condition permits. Accurate records of the food, sodium, chloride, potassium and fluid intake and the urine output may be necessary for metabolic studies.

As the patient improves he at first may be permitted to work puzzles, read, and play cards or board games which require little exertion. Later the physician may order supervised light activity about the ward to evaluate the effectiveness of treatment before allowing the patient to go home, and in order to judge whether he is receiving enough treatment to enable him to tolerate ordinary home activity.

Case Report

Mrs. X, a forty-two year old woman, came to the Washington University Clinic on 18th July 1939. She was so ill that she was immediately sent into Barnes Hospital. She was diffusely pigmented,

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her skin being a soft beige colour, with some dark brown freckling. She was extremely weak, scarcely able to walk or talk, and suffered with dizzy spells, generalised aching, nausea and abdominal pain.

Besides the pigmentation, other striking physical findings were: evidence of weight loss, dry loose skin, weight 105 lb., height five feet five inches. She was prematurely white-haired. The mucous membranes of the lips and mouth showed patchy brownish spots of pigmentation. The eyeballs were recessive. The lungs seemed normal, the heart was normal size, pulse weak, rate 110, blood pressure 78/52 lying down, 60/50 standing up. The patient was considered to be in mild Addisonian crisis.

She was put at complete rest in bed, and was given an intravenous saline with 10 cubic centimetres of Wilson's cortical extract intramuscularly. This was repeated four hours later. For the first few days she received 20 cubic centimetres of the extract daily, later 10 cubic centimetres daily, then 5 cubic centimetres per day. In addition she had the following orders: (1) sodium chloride, 10 grams daily in tablets; (2) sodium citrate, 5 grams twice daily in orange juice; (3) high sodium, low potassium diet; (4) unnecessary examinations omitted; (5) accurate intake and output of fluids; (6) blood pressure to be charted twice daily. (No attempt is made to give foods actually high in sodium, but rather the diet is planned to include foods low in potassium and foods that can be heavily salted and palatable at the same time. Such foods are watermelon, white rice, grapefruit, apples, bacon, eggs, hominy, and crackers [biscuits]. Sodium citrate added to orange juice is a good source of sodium.

At the end of the first two days Mrs. X was much better. At the end of seven days she was able to be up, and her blood pressure was 100/65. Desoxycorticosterone was then substituted for the adrenal cortex extract. On 5 milligrams intramuscularly daily, her strength improved, she gained weight, and her blood pressure rose to 118/76. Her nervousness and irritability decreased.

On 26th August four pellets of desoxycorticosterone acetate were implanted subcutaneously in the lumbar region, and the injection treatment was stopped. She continued to gain weight and to get stronger, and her blood pressure remained at about 116/70. On 17th September two of the pellets were removed and weighed, and the average daily absorption was found to be approximately 0.3 milligram per pellet per day. Two new pellets were inserted, so that she still had four pellets.

The pellets are implanted just under the skin. The area is prepared with iodine and alcohol, and a small amount of one or two per cent. novocaine is injected to lessen pain. Only very small incisions are necessary, as each pellet is about the size of a one-half grain phenobarbital tablet. Several pellets can be inserted at various angles through a small incision. A stitch or two closes the small wound. A small gauze dressing is left on for several days. Stitches are removed on the third day. The nurse assists as she does with other minor surgical procedures. Pellet insertions can be done on the ward or in the dressing room.