

1. Disease Process & Brief Pathophysiology

Hashimoto's disease, also known as Hashimoto thyroiditis, is an autoimmune disease that attacks thyroid cells. Patients with Hashimoto's disease develop antibodies to several different thyroid antigens, most commonly to anti-thyroid peroxidase (anti-TPO). Other antibodies get formed in response to antithyroglobulin (anti-Tg) and TSH receptors. Such antibodies are a result of a hyperactive immune response. These rogue antibodies attack and destroy thyroid tissue. This thyroid tissue damage leads to inadequate production of thyroid hormone and eventual progressive fibrosis. Atrophy of the thyroid cells also occurs as the cells shrink due to loss of organelles, cytoplasm and proteins. The thyroid gland also exhibits a nodular or asymmetrical appearance due to atrophy and progressive tissue damage caused by the antibodies. Elevated thyroid-stimulating hormone (TSH) and low levels of free thyroxine (fT4), in addition to increased antithyroid peroxidase (TPO) antibodies are hallmark signs of Hashimoto's disease and can be considered diagnostic.

4. Diagnostic Tests Pertinent or confirming of diagnosis

Hormone test (P)

Antibody test

TSH test/ serum thyroid-stimulating tests (P)

Thyroid ultrasound (P)

CBC (P)

Physical examination (P)

Serum T3 and T4

Immunoassay testing

2. Factors for the Development of the Disease/Acute Illness

Genetic predisposition and family history of autoimmune or thyroid diseases

Age(more prevalent in middle age)

Other autoimmune diseases already present (P)

Environmental factors: radiation exposure

Menopause: Decreased estrogen levels during menopause may affect thyroid function (P)

Bacterial infections: can trigger autoimmune diseases to develop

Sex: females are more likely to develop Hashimoto's disease(P)

5. Lab values that may be affected

Creatine kinase levels

Prolactin levels

Total cholesterol (P)

LDLs (P)

Triglycerides (P)

TSH (P)

T4 (P)

T3 (P)

Anti-thyroid peroxidase antibody count (P)

Anti-thyroglobulin antibody count (P)

Red blood cell count (P)

3. Signs and Symptoms

Diarrhea, often with blood or pus (P)

Cold and dry skin

Facial edema

Nonpitting edema of hands and feet

Brittle nails (P)

bradycardia

delayed relaxation of tendon reflexes

elevated blood pressure

slow speech (P)

ataxia

macroglia

accumulation of fluid in the pleural and pericardial cavities (P)

myxoedema

fatigue/sluggishness (P)

constipation

goiter

anemia

6. Current Treatment

Synthetic hormones(P)

Levothyroxine (P)

Biologics therapy (drugs that target proteins made by immune system)

iron supplements, including multivitamins that contain iron
Anti-diarrheal medications (P)

Ulcer medication (P)

Calcium supplements

Iron supplements

autoimmune/anti-inflammatory diet

7. Focused Nursing Diagnosis:

Activity intolerance

11. Nursing Interventions related to Nursing Diagnosis in #7:

1. promote rest

Evidence Based Practice:

space activities to promote rest and exercise as tolerated

2. provide bedside commode

Evidence Based Practice:

Use of a commode requires less energy expense than using a bedpan or ambulating to restroom

3. dangle the legs from the bedside for 10-15 min

Evidence Based Practice:

Prevents orthostatic hypotension

12. Patient Teaching:

1. Teach patient to not take calcium or iron within 4 hours of taking thyroid medication.

2. teach patient to eat a high-fiber, low calorie diet to relieve constipation and maintain a healthy weight

3. instruct patient to take medication at the same time everyday and to not abruptly discontinue medication as symptoms will return

8. Related to (r/t):

Fatigue due to impaired metabolic state

9. As evidenced by (aeb):

Chronic tiredness or sleepiness, headache, dizziness, muscle weakness, slowed reflexes/ responses, increased rest requirements, lack of energy

10. Desired Patient Outcome:

Patient will ambulate twice on 1/25/202 by noon.

13. Discharge Planning/Community Resources:

1. Care plan of activity to be given to patient to allow adequate rest periods. Activity periods to be scheduled for when patient has most energy.

2. patient consult with physical therapist

3. follow up with a dietician to assess for need of vitamin/ mineral supplements, and for patient counseling

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