

Aim of the study

1- To detect if there is a co-incidence between Rheumatic heart disease and thyroid gland dysfunction (hyperthyroidism & hypothyroidism) either clinical or subclinical.

2- To evaluate the effect of thyroid gland dysfunction on the patient of rheumatic heart disease as regard symptoms, signs, and echocardiographic parameters before and after treatment of thyroid gland dysfunction.

Patient and methods

The study was cross sectional study conducted on 200 RHD patients at Beni-seuf university hospital; all patients underwent cardiac examination, Echo, thyroid profile and thyroid antibodies and thyroid ultrasonography for part of them.

This study revealed the following

- ❖ There is an association between rheumatic heart disease and thyroid gland dysfunction, however it isn't fully understood or appreciated.
- ❖ Hyperthyroidism is a reversible etiology for pulmonary hypertension.
- ❖ There is a statistically significant drop in the pulmonary artery systolic pressure in hyperthyroidism patient after treatment with anti-thyroid medications.
- ❖ Thyroid gland dysfunction is associated with cardiac valve involvement

Based on the previous findings:

- ❖ Routine thyroid function in rheumatic heart disease is not recommended. However it should be done in these circumstances:
 - If there is discrepancy between mitral valve area and symptoms.
 - Unexplained elevated pulmonary artery systolic pressure
 - Very rapid heart rate.

- Tachycardia induced cardiomyopathy
- ❖ You should exclude hyperthyroidism in any patient with atrial fibrillation, even if it's due to obvious cause.
- ❖ The autoimmune component between the two conditions needs further genetic testing.
- ❖ Chronic thromboembolic pulmonary hypertension should be excluded in any patient with pulmonary hypertension.
- ❖ Periodic follow up for subclinical thyroid dysfunction is recommended, as it may become overt type in the future.