A 55 years old normotensive lady presented with progressive shortness of breath and palpitation for 2 months, orthopnoea and dry cough for the last 7 days. Physical examination revealed her pulse rate was 112 bpm, in atrial fibrillation, a systolic flow murmur all over precordium, and bilateral basal crackles. No thyroid swelling was present in front of her neck. On routine chest X ray a homogenous opacity in right upper and mid zone was present (Fig.-1), revealing the possibility of retrosternal goiter. Her thyroid hormone profile showed features of hyperthyroidism (TSH < .04 mIU/L, FT₄ 210 nmol/L, FT₃ 7 nmol/L). Thyroid scan could not be done as patient declined to perform any further investigations.

After a short period of antithyroid therapy and optimized treatment of heart failure, her symptoms improved significantly. Congestive heart failure has been noted in only 6% of patients with hyperthyroidism.¹ ² Heart failure can occur without any underlying organic heart disease in these patients, solely caused by atrial fibrillation. Underlying mechanism may be due to a decline in myocardial contractility, left ventricular ejection fraction and an increase in ventricular dimensions.³ Systolic dysfunction in these patients usually reversible once a euthyroid state is reestablished but is not a rule.³

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Conflict of Interest: None

References:

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