

## ABSTRACT

### INTRODUCTION :

Amiodarone is a potent antiarrhythmic drug that is used to treat ventricular and supraventricular tachyarrhythmias. It is a benzofuran-derived, iodine-rich compound with some structural similarity to thyroxine (T<sub>4</sub>). Amiodarone induces predictable changes in thyroid function tests that are largely explicable in terms of the physiological effects of iodide excess and inhibition of deiodinase activity. Clinically relevant thyroid dysfunction is not uncommon during amiodarone therapy, and requires careful diagnosis and treatment

### AIMS AND OBJECTIVES OF THE STUDY :

1. To find out the prevalence of Thyroid dysfunction among patient undergoing amiodarone therapy
2. To find out the associated risk factors with Thyroid dysfunction among patient undergoing Amiodarone therapy

### MATERIALS AND METHOD :

We conducted study in the chengalpattu medical college among the patients attending cardiology opd. Around 200 subjects were included in this study.all the patients are investigated for thyroid profile and other blood tests and detailed history recorded based on the standard proforma.

### OBSERVATION AND RESULTS :

*Overall prevalence of thyroid dysfunction* corresponds to 27% among the 200 population studied.

1. Subclinical Hypothyroidism	9.5%
2. Clinical Hypothyroidism	2.5%
3. Thyrotoxicosis	8.5%
4. Subclinical thyrotoxicosis	6.5%

Amiodarone induced thyrotoxicosis occurs predominantly in low iodine intake individual . Diabetes Mellitus when coexist with Amiodarone treated patients Thyroid dysfunction is more common .Thyroid dysfunction is common among supraventricular tacharrhythmia with amiodarone compared to ventricular tachyarrhythmia with amiodarone.Dyspnoea is acommon clinical symptom among thyroid dysfunction patient but asymptomatic patients are even higher

suggesting to do screening thyroid function routinely in all individual. As Amiodarone dosage increases the chance of thyroid dysfunction increases. Duration of Amiodarone therapy in our study includes 24 months and hypothyroidism occurs predominantly within 15 months and hyperthyroidism occurs predominantly after 15 months. Hypothyroidism is more common in female sex, whereas hyperthyroidism occurs almost equally in both sexes in our study. Age is not a significant risk factor in the development of thyroid dysfunction.

## **CONCLUSION :**

It is recommended to do thyroid function test in patients undergoing amiodarone therapy more than 3 months duration and follow up them if warranted.

In our study all the patient with hypothyroidism were started on levothyroxine treatment and all hyperthyroidism were started on antithyroid drugs and all of them referred to get Endocrinology opinion for further management.

Thyroid dysfunction is very common in our part of country; since our geographical area is mixed with iodine deficient and iodine sufficient population, it is very important to do thyroid function test among patient undergoing chronic Amiodarone Therapy; still larger studies are needed in this area as it is first study in our population ,to become it generalised.

## **KEY WORDS :**

AIT, AIH, TSH ,FT4, FT3, AMIODARONE AND THYROID.