

# **Radio iodine therapy for hyperthyroidism- A single centre retrospective data.**

## **Objective**

To share our experience with radio-iodine (I-131) therapy for hyperthyroidism focussing on efficacy, safety and the long term outcomes.

## **Methods**

Retrospective single arm cohort study from a tertiary care center in Southern India. Adult patients with hyperthyroidism eligible for I-131 having at least 12 months of medical records post I-131 therapy were included in the data analysis. Descriptive statistics were used for overall analysis.

## **Results**

50 patients were included in the analysis (females :44) with a mean age of 35.9 years (SD 7.8 years). The mean duration of the disease at the time of presentation was 21.4 months (SD 9.5 months). Eighty-six percentage of patients had received antithyroid drugs (66% Carbimazole and 20% Methimazole) before being considered for I-131 and other patients (14%) received I-131 as the primary mode of therapy due to compelling reasons. Adverse drug reactions (10%), relapse (66%) and failure to achieve remission (10%) were the reasons for I-131 therapy in patients who received prior anti-thyroid drugs. Eighty six percentage of patients were having diffuse goiter and 12% patients were having one or more small ( up to 1 cm) and benign nodules in the ultrasonogram. All patients were having uniform tracer uptake in the Technetium Thyroid ( $^{99}\text{Tc}$ ) scan [range 3% to 8%; mean: 5.9% (SD 1.3%)]. The dose of I-131 was calculated based thyroid volume and  $^{99}\text{Tc}$  uptake [range 8 mCi to 15 mCi; mean: 12.2 mCi (SD 1.73 mCi)]. Overall 88% of patients achieved cure with the first dose and the rest of the patients did so with a second dose of 16 mCi of I-131. The time to therapeutic response varied [range 6 weeks to 12 weeks; mean: 9.2 weeks (SD 1.4 weeks)]. At one year follow up, 94 % of patients were on thyroxin replacement and rest remained euthyroid without any medications. Neck and throat pain (8%) and dry mouth with altered taste (4%) were the common side-effects.

## **Conclusions**

Radio-iodine therapy is a safe and effective method in the management of hyperthyroidism. Majority of the patients had responded to the first dose with minimum side-effects. Most of the patients were on thyroxin replacement at 1 year follow up.