

ABSTRACT: ATA-ITSCON 2019

TITLE: Long term Anti-Thyroid Drug use in Graves Disease - A questionnaire based study of Endocrinologists in Southern India

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OBJECTIVE: It is generally suggested that after a period of 12-18 months of anti-thyroid drug (ATD) use for Graves Disease (GD), the options of definitive therapy including Radio-iodine ablation (RIA) or surgery (TT) be considered. However continued long term use of ATD is gaining popularity. We proposed to study the clinical characteristics of patients who have been on long term ATD.

METHODS: We issued a mobile based e-questionnaire that could be filled up using a web-application called Epicollect to a group of Endocrinologists. The inclusion criteria was patients diagnosed with GD who have been on ATD ≥ 12 months and had not received radio-iodine or undergone thyroid surgery. Toxic multinodular goiter and toxic adenoma were excluded.

RESULTS: Data of 100 patients obtained between Feb 2019 to April 2019 from 10 endocrinologists were included in this study. Four patients were excluded as they did not meet the inclusion criteria. The mean (SD) age of the reported patient cohort was 43 (16) with 77% females with a follow up duration ranging upto 17 years. Only a small fraction of the patients were smokers (6%) and 20% had orbitopathy. About 78% were currently on ATD with mean (SD) duration of therapy of 45 (34) months with a mean dose of 8 mg/day of Neomercazole or Carbimazole (Range 2.5 mg to 40mg). No patient was on PTU. About 9% of patients had remission of GD and were euthyroid off ATD with mean ATD use of 37 months (Range:18-52), while 6% had converted spontaneously to hypothyroid state. In those who were on ATD, 75% were euthyroid (TSH 0.5-5), 20% were persistently toxic and 5% were hypothyroid (TSH >5). The mean dose of ATD in those who were persistently thyrotoxic was significantly higher than those who were euthyroid (32mg vs 7.5mg P <0.01). No patients developed any adverse events requiring discontinuation of therapy.

CONCLUSION: Long term ATD use can be safely used beyond 18 months and the chances of achieving and maintaining a euthyroid state is higher (75%) if the dose of ATD is <10mg/day.