

**EARLY RADIOIODINE ABLATION POST THYROIDECTOMY WITH RECOMBINANT TSH (R-TSH) STIMULATION AND ITS IMPACT ON PERFORMANCE STATUS, VERSUS THYROXINE ABSTINENCE PROTOCOL IN DIFFERENTIATED THYROID CARCINOMA : INITIAL RESULTS OF A RANDOMIZED PROSPECTIVE CLINICAL TRIAL**

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**Background/Purpose:** Feasibility and utility of *r*-TSH to facilitate ablation post thyroidectomy & its impact on performance status compared to withdrawal, prospectively

**Methods:** Randomized trial, comparing two thyrotropin stimulation methods : *r*-TSH early post surgery (group I) and thyroxine withdrawal ( group II). 18 years or older, post surgery, pT1-T3, N0/N1 included. 0.9 mg *r*-TSH injected at 24 hrs interval (group I). Mean dose 55 & 59 mCi respectively used. QOL by ECOG criteria & response after 6 months by WBS, USG & thyroglobulin done. End points were success of ablation and QOL. Relevant statistical analysis performed. Protocols approved by IRB

**Results:** 19 (7 males & 12 females) underwent ablation March'11-May'12. 89% papillary carcinoma. 8 ( 57.38± 14.85 years) and 11 patients ( 41.73± 12.87 years) randomized to group I & II respectively. Adequate TSH response seen (>80 µIU/ml). Avid 131I concentration in thyroid bed & no distant metastasis, in the post therapy scans seen in all. Total ablation in 8 patients( thyroglobulin < 1 ng/ml in 7, >10 ng/ml in 1 ) in group I and 9 (thyroglobulin <1 ng/ml group II (p=0.719). Partial ablation in 0 & 2 patients in group I & II respectively (p=0.202). ECOG score 0-1 & 2-3 group I & II (p=0.0005).

**Discussion & Conclusion:** Ablation is feasible immediately post thyroidectomy by *r*-TSH stimulation with same outcome compared to the thyroxine withdrawal. No hypothyroid symptoms post *r*-TSH stimulation resulted in better compliance, performance status and quality of life with patients being able to go back to their normal routine much earlier.