

## **PRIMARY SQUAMOUS CELL CARCINOMA OF THE THYROID – ROLE OF DOSE-ESCALATED TOMOTHERAPY BASED IMRT AND CONCURRENT CHEMOTHERAPY – A CASE SERIES.**

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**Background/Purpose:** Squamous cell thyroid carcinoma is a rare aggressive cancer accounting for less than 1% of all thyroid cancers. Median survival rate is 6 months from a small case series. It presents at an advanced stage and complete surgical resection and chance of cure is impossible in almost all cases. We present two cases treated post surgical resection with paclitaxel/cisplatin induction chemotherapy and concurrent tomotherapy comparing survival outcomes.

**Methods:** Patient one presented with an enlarging neck lump and underwent right modified radical neck dissection, right hemithyroidectomy with subsequent induction and then concurrent paclitaxel chemotherapy and high dose tomotherapy which he completed. After cycle 3 of palliative paclitaxel/cisplatin chemotherapy he suffered with an episode of chest sepsis coupled with disease progression on re staging CT and the decision was to palliate.

Our second patient again presented with an enlarging neck lump and underwent total thyroidectomy with level V1 clearance prior to starting induction chemotherapy with cisplatin then concurrent tomotherapy. Chemotherapy was stopped after cycle 3 due to side effects and to allow completion of radiotherapy. Restaging CT scan prior to death (2 years post diagnosis) showed no disease recurrence and her death was secondary to complications of her tracheostomy.

**Results:** In both cases survival exceeded reported figures and our second patient was in remission at time of death.

**Discussion & Conclusion:** Whilst early diagnosis and better surgical margins undoubtedly impact on survival combined Taxol/Platinum based weekly chemotherapy and Dose -escalated IMRT merits further study in this aggressive cancer, as opposed to surgery with standard chemotherapy –radiotherapy regimes.