

## **Concurrent chemoradiotherapy with docetaxel plus cisplatin (TP regimen) followed by consolidation chemotherapy with TP regimen in treatment of anaplastic thyroid cancer**

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### **Abstract**

**Purpose:** To evaluate the efficacy and outcome of concomitant docetaxel/cisplatin and limited field irradiation followed by consolidation docetaxel/cisplatin in patients with anaplastic thyroid cancer (ATC).

**Patients and Methods:** This is a prospective phase II study that included 13 ATC patients. Eligible patients were treated first with surgical debulking of the tumor if possible, then by concomitant chemo-radiation with conventionally fractionated radiation (60 Gy in 2Gy fractions) to the gross or residual primary disease and regionally involved lymph nodes. This was followed by 4 cycles of consolidation chemotherapy /3 weeks.

**Results:** The median follow-up duration was 15 months (range from 6 to 30 months). The median survival was 16.8 months and the median progression free survival was 13.4 months. . After concomitant chemoradiation, 7 patients (53.8%) achieved objective response which improved to 69.2% at the end of treatment. A total of 7 patients (53.8%) had treatment failure, 3 patients (23%) had neck failure including 2 patients (15.3%) had exclusively neck failure, and 1 patient (7.6%) had neck and distant failure. Four patients (30.7%) developed distant metastasis. Neutropenia (23%), anemia (15.3%), nausea and vomiting (15.3%) and pharngo-esophagitis (7.6%) were the most severe, grade 3 and 4, acute toxicities recorded during concomitant chemoradiation. Neutropenia (30.7%) and anemia (23%) were the most pronounced, grade 3 and 4, toxicities during consolidation chemotherapy.

**Conclusion:** Concomitant chemo-radiation using TP regimen, with limited nodal irradiation followed by consolidation TP regimen improves the median overall and progression-free survival and response rate together with tolerable toxicity in ATC patients.