

# **Chemo-radiation with RF Hyperthermia – A Novel Trimodality Option for Advanced Head and Neck Cancer**

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## **Abstract:**

Chemo-radiation is the current standard of care in most of head and neck cancers. It has improved disease free survival, functional integrity and marginally the survival. Hyperthermia has been shown to improve survival when combined with radiation. There is a level I evidence for the same. Hyperthermia can also enhance the effects of chemotherapy by increasing tumour perfusion, altering cell membrane characteristics on inhibiting repair. Hence, combination of all the three modalities should in principle add to the response and overall survival. Importantly hyperthermia has non-overlapping targets along with chemo-radiation.

## **Materials and Methods:**

Patients with non-resectable advanced head and neck cancers were treated with trimodality treatment. Nasopharyngeal cancers were not included in this prospective non-randomized study of cancer. All patients were scoped and imaged before obtaining histological confirmation. Twenty-three patients received radiation with conventional fractionation to a total dose of 70 Gy. Patients also received either 60mgs of paclitaxel or cisplatin 50 mg per week. Patients were evaluated periodically during and after the treatment. Initial response and toxicities were scored during and at the end of treatment. Initial response and toxicities were scored during and at the end of treatment.

## **Conclusion:**

Trimodality treatment was well-tolerated ten patients showed a complete response and thirteen showed PR. A randomized trial to assess the role of HT will be the next step.