

**Induction chemotherapy followed by concomitant radiotherapy and weekly cisplatin versus the same concomitant chemoradiotherapy in patients with nasopharyngeal carcinoma: a randomized phase II study conducted by the Hellenic Cooperative Oncology Group (HeCOG) with biomarker evaluation.**

[Fountzilas G](#), [Ciuleanu E](#), [Bobos M](#), [Kalogera-Fountzila A](#), [Eleftheraki AG](#), [Karayannopoulou G](#), [Zaramboukas T](#), [Nikolaou A](#), [Markou K](#), [Resiga L](#), [Dionysopoulos D](#), [Samantas E](#), [Athanassiou H](#), [Misailidou D](#), [Skarlos D](#), [Ciuleanu T](#).

**Source**

Department of Medical Oncology Papageorgiou Hospital, Aristotle University of Thessaloniki School of Medicine, Thessaloniki, Greece. fountzil@auth.gr

**Abstract**

**BACKGROUND:**

Concomitant administration of radiation therapy (RT) and chemotherapy with cisplatin (CCRT) is considered standard treatment in patients with locally advanced nasopharyngeal cancer (LA-NPC). The role of induction chemotherapy (IC) when followed by CCRT in improving locoregional control remains controversial.

**PATIENTS AND METHODS:**

Totally, 141 eligible patients with LA-NPC were randomized to either three cycles of IC with cisplatin 75 mg/m<sup>2</sup>, epirubicin 75 mg/m<sup>2</sup> and paclitaxel (Taxol) 175 mg/m<sup>2</sup> (CEP) every 3 weeks followed by definitive RT (70 Gy) and concomitant weekly infusion of cisplatin 40 mg/m<sup>2</sup> (investigational arm, 72 patients) or to the same CCRT regimen alone (control arm, 69 patients).

**RESULTS:**

Sixty-two patients (86%) received three cycles of IC. No difference between the arms was observed in the number of patients who completed RT (61 versus 64, P = 018). Overall and complete response rates were very similar in the two arms and so were 3-year progression-free and overall survival rates. Grade III or IV toxic effects from IC were infrequent, apart of alopecia. Mucositis, weight loss and leukopenia were the most prominent side-effects from CCRT.

**CONCLUSION:**

IC with three cycles of CEP when followed by CCRT did not significantly improve response rates and/or survival compared with that of CCRT alone.