**Supplementary Data**

**Excluded studies**

1. Paterson C, Robertson AG, Grose D, Correa PD et al. "Neoadjuvant chemotherapy prior to surgery in head and neck cancer." Clin Oncol (R Coll Radiol). 2012 Feb;24(1):79-80
2. Lin JT, Lai GM, Chang TH et al. "Chemotherapy with modified docetaxel, cisplatin, and 5-fluorouracil in patients with metastatic head and neck cancer." Adv Ther. 2012 Jan;29(1):71-7
3. Kies MS, Boatright DH, Li G, Blumenschein G,et al. "Phase II trial of induction chemotherapy followed by surgery for squamous cell carcinoma of the oral tongue in young adults." Head Neck. 2012 Sep;34(9):1255-62
4. Ansari M, Omidvari S, Mosalaei A, et al. "A Phase II Study of Docetaxel, Cisplatin and 5- Fluorouracil (TPF) In Patients with Locally Advanced Head and Neck Carcinomas. Iran Red Crescent Med J. 2011 Mar;13(3):187-91.
5. Wanebo HJ, Rathore R, Chougule P, et al" Selective organ preservation in operable locally advanced head and neck squamous cell carcinomas guided by primary site restaging biopsy: long-term results of two sequential brown university oncology group chemoradiotherapy studies"Ann Surg Oncol. 2011 Nov;18(12):3479-85.
6. Ready NE, Rathore R, Johnson TT et al. "Weekly paclitaxel and carboplatin induction chemotherapy followed by concurrent chemoradiotherapy in locally advanced squamous cell carcinoma of the head and neck." Am J Clin Oncol. 2012 Feb;35(1):6-12
7. Choe KS, Salama JK, Stenson KM,et al. "Adjuvant chemotherapy prior to postoperative concurrent chemoradiotherapy for locoregionally advanced head and neck cancer.. Radiother Oncol. 2010 Nov;97(2):318-21
8. Schultz JD, Bran G, Anders C, et al. "Induction chemotherapy with TPF (Docetaxel, Carboplatin and Fluorouracil) in the treatment of locally advanced squamous cell carcinoma of the head and neck" Oncol Rep. 2010 Nov;24(5):1213-6
9. Haddad RI. " Randomized trial of induction chemotherapy with cisplatin and 5-fluorouracil with or without docetaxel for larynx preservation. J Natl Cancer Inst. 2009 Aug 19;101(16):1157-8
10. Adelstein DJ, Moon J, Hanna E, et al . "Docetaxel, cisplatin, and fluorouracil induction chemotherapy followed by accelerated fractionation/concomitant boost radiation and concurrent cisplatin in patients with advanced squamous cell head and neck cancer: A Southwest Oncology Group phase II trial (S0216)." Head Neck. 2010 Feb;32(2):221-8
11. Fountzilas G, Bamias A, Kalogera-Fountzila A et al . "Induction chemotherapy with docetaxel and cisplatin followed by concomitant chemoradiotherapy in patients with inoperable non-nasopharyngeal carcinoma of the head and neck." Anticancer Res. 2009 Feb;29(2):529-38
12. Rapidis A, Sarlis N, Lefebvre JL, Kies M." Docetaxel in the treatment of squamous cell carcinoma of the head and neck. Ther Clin Risk Manag. 2008 Oct;4(5):865-86.
13. Kamnerdsupaphon P, Chitapanarux I, Lorvidhaya V, et al. " Taxotere, cisplatin, fluorouracil, and leucovorin (TPFL)as induction chemotherapy for locally advanced squamous cell carcinoma of the head and neck" Gan To Kagaku Ryoho. 2008 Nov;35(11):1869-73
14. Barone C, Grillo R, Dongiovanni D, Birocco N,et al. "Induction chemotherapy followed by concurrent chemoradiotherapy in advanced head and neck squamous cell carcinoma." Anticancer Res. 2008 Mar-Apr;28(2B):1285-91.
15. Shin HJ, Chung JS, Choi YJ et al. "Neoadjuvant docetaxel and cisplatin chemotherapy followed by local irradiation is highly active on locoregionally advanced squamous cell carcinoma of the head and neck"J Laryngol Otol. 2008 Jul;122(7):722-7.
16. Schneider I, Holzgraefe M, Schröder M "Carboplatin and paclitaxel induction chemotherapy for patients with oropharynx carcinoma." Laryngorhinootologie. 2008 Oct;87(10):719-22
17. . Andreadis C, Iliopoulou C, Sidiras T et al. "Neoadjuvant chemotherapy followed by radiotherapy versus concurrent chemoradiotherapy for larynx preservation in patients with advanced laryngeal cancer"J BUON. 2007 Jul-Sep;12(3):341-7
18. Ahn JS, Cho SH, Kim OK, Lee JK et al. "The efficacy of an induction chemotherapy combination with docetaxel, cisplatin, and 5-FU followed by concurrent chemoradiotherapy in advanced head and neck cancer." Cancer Res Treat. 2007 Sep;39(3):93-8
19. Posner MR, Hershock DM, Blajman CR et al. "Cisplatin and fluorouracil alone or with docetaxel in head and neck cancer." N Engl J Med. 2007 Oct 25;357(17):1705-15
20. Choi YJ, Chung J, Shin HJ, Cho GJ et al. "Induction chemotherapy of docetaxel and Cisplatin for the elderly patients with squamous cell carcinoma of the head and neck." Cancer Res Treat. 2007 Mar;39(1):1-5
21. Haddad R, Tishler R, Wirth L et al . "Rate of pathologic complete responses to docetaxe l, cisplatin, and fluorouracil induction chemotherapy in patients with squamous cell carcinoma of the head and neck"Arch Otolaryngol Head Neck Surg. 2006 Jun;132(6):678-81.
22. Worden FP, Moon J, Samlowski W et al. "A phase II evaluation of a 3-hour infusion of paclitaxel, cisplatin, and 5-fluorouracil in patients with advanced or recurrent squamous cell carcinoma of the head and neck: Southwest Oncology Group study 0007" Cancer. 2006 Jul 15;107(2):319-27
23. Rapidis AD, Trichas M, Stavrinidis E, et al. "Induction chemotherapy followed by concurrent chemoradiation in advanced squamous cell carcinoma of the head and neck: final results from a phase II study with docetaxel, cisplatin and 5-fluorouracil with a four-year follow-up." Oral Oncol. 2006 Aug;42(7):675-84
24. Benasso M, Ponzanelli A, Merlano M et al. "Paclitaxel, cisplatin and 5-fluorouracil in recurrent squamous cell carcinoma of the head and neck: a phase II trial from an Italian cooperative group" Acta Oncol. 2006;45(2):168-74.
25. Fountzilas G, Tolis C, Kalogera-Fountzila A et al. "Paclitaxel, cisplatin, leucovorin, and continuous infusion fluorouracil followed by concomitant chemoradiotherapy for locally advanced squamous cell carcinoma of the head and neck: a Hellenic Cooperative Oncology Group Phase II Study." Med Oncol. 2005;22(3):269-79

**Table 1: Characteristics of included studies**

IV - intravenous; Pa –paclitaxel; T-docetaxel; P-cisplatin; F – 5-flourouracil; ABx – antibiotics; GCSF – granulocyte colony stimulating factor; GTV gross tumor volume; GTV clinical tumor volume

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **First Author, Year,**  **Publication status** | **Taxane type and dosage + schedule (IV)** | **Cisplatin /5FU**  **Dosage + schedule (IV)** | **Post induction radiation** | **Number of Patients**  **randomized**  TPF/PF | **Pt. receiving**  **Radiotherapy (%)** | **Follow Up** median | **Main cancer site**  (%, mean) | **Main Tumor status** | **Prophy-**  **Laxis**  **(ABx/GCSF)** | **Treatment related death** | **Allocation concealment** |
| Hitt, 2005 | Paclitaxel – 165 mg/m2 day 1  Q-3weeks  For 9 weeks | Research – 100/500 mg/m2 day1/day1-5  Control – 100/1000 mg/m2 day1/day1-5  Q-3weeks  For 9 weeks | Radiotherapy to the primary tumor and to the clinically positive nodes (GTV) to a total dose of 70 Gy in 35 fractions of 2 Gy each over a 7-week period. The CTV of nodal areas not clinically involved by tumor received a total dose of 50 Gy. Doses and schedules were identical in both treatment arms of the study | 189/193 | PaCF – 60%  CF -40% | 23.2 months | PaCF orophrynx -34%  CF oropharynx -35% | PaCF-T4  (n-109)  CF-T4  (n-102) | None | PaCF -4  PF - 8 | Low risk of bias |
| Posner,  2007, Lorch 2011 | Docetaxel- 75 mg/m2 day1  Q-3weeks  For 9 weeks | Research -100/1000 mg/m2 day1/day1-4  Control – 100/1000 mg/m2 day1/day1-5  Q -3weeks  For 9 weeks | Radiotherapy to the primary tumor (GTV ) was between 70 Gy and 74 Gy in fractions of 2 Gy per day, 5 days per week. CTV of the uninvolved lymph nodes were treated with at least 50 Gy and involved lymph nodes received 60–74 Gy, dependent on whether an elective neck dissection was indicated after completion of treatment. All patients were treated with a three-field technique; no intensity modulated radiation therapy was used | 255/246 | TPF – 79%  PF – 75% | 72.2 months | TPF oropharynx – 52%  PF oropharynx – 53% | TPF–T4  (n-125)  PF–T4  (n-92) | ABx | Not reported | Not reported |
| Vermoken, 2007 | Docetaxel – 75 mg/m2 day1  Q – 3weeks  For 9-12 weeks | Research – 75/750 mg/m2 day1 /day1-5  Control – 100/1000 mg/m2 day1/day1-5  Q-3weeks  For 9-12 weeks | Radiation was delivered during a 7-week period with the use of either conventional fractionation (total dose, 66 to 70 Gy) or accelerated or hyperfractionated regimens (total maximum dose of 70 Gy for the accelerated regimen and 74 Gy for the hyperfractionated regimen) | 177/181 | TPF – 90%  PF – 85% | 32.5 months | TPF oropharynx -45.8%  PF oropharynx -46.4% | TPF-T4  (n-123)  PF-T4  (n-129) | ABx | TPF – 6  PF - 12 | Not reported |
| Pointreau,  2009 | Docetaxel – 75 mg/m2 day 1  Q-3weeks  For 9 weeks | Research – 75/750 mg/m2 day1/day1-5  Control -100/1000 mg/m2 day1/day1-5  Q-3weeks  For 9 weeks | Radiation was delivered using 4- to 6-MV photon beams. Two target volumes were defined: 1) the GTV (therapeutic planning target volume that encompassed the primary tumor volume and involved lymph nodes as they were before induction therapy), and 2) the CTV (prophylactic planning target volume that encompassed the area presumed to be at risk for microscopic disease). The therapeutic and prophylactic planning target volumes received 70 and 50 – 54 Gy, respectively. Five daily fractions of 2 Gy per week were used. The dose to the spinal cord was limited to less than 44 Gy. Chemotherapy during radiotherapy was allowed for all patients who were treated at the same institute, according to its practice | 110/103 | TPF – 76%  PF – 61% | 36 months | TPF hypopharynx 52.4%  PF hypopharynx 55.5% | TPF-T3  (n-80)  PF-T3(n-63) | ABx | TPF – 3  PF - 2 | Not reported |