Purpose or Objective: The aim of this prospective study is the comparison of perfusion parameters chang&CTPp before and after radio-chemotherapy (RCT) and their correlation with maximum standard uptake values variations (ΔSUV max) among patients (pts) with head and neck tumor (HNT), in order to evaluate the prognostic value of perfusion CT parameters (CTPp) in predicting response to RCT.

Material and Methods: We enrolled pts with intermediate and advanced stage of HNT (stage III-IV), candidated to RCT with curative intent. All pts underwent to a pretreatment diagnostic and staging workup including perfusion CT (CTP) and FDG-PET/CT total body. Pts also perform a CTP 3 weeks after the end of RCT (CTP3w) and 3 months after the end of RCT (CTP3m) and PET/CT, respectively. We analysed variations of following CTPp: Blood Flow (BF), Blood Volume (BV), Mean Transit Time (MTT) and Permeability-surface product (PS). All RCT treatments were performed using intensity modulated radiotherapy technique with simultaneous integrated boost. Prescribed doses were 66 Gy at 2.2 Gy per fraction to high risk volume PTV and 60-54 Gy at 2.0- 1.8 Gy per fraction respectively to intermediate (optional) and low risk PTVs, delivered in 30 daily fractions. Concurrent weekly Cisplatin 40 mg/ m2 or Cisplatin 100 mg/m2 day 1, 22 an 43 was offered to all pts.

Results: From July 2012 to July 2015 25 pts affected by stage III/IV HNT candidate to RCT were enrolled in our study. FDG-PET/CT 3 months after the end of RCT showed a complete metabolic response in 16 pts (64%), a partial metabolic response in 7 pts (28%), a stable metabolic disease in 1 pts and progression metabolic disease in 1 pts (according PERCIS criteria). A significant reduction of all CTPp was observed from baseline CTP to CTP3w, except for MTT that did not show a significant variation (p=0.722). The results of the group of 539 patients with T1N0M0 glottic cancer included in the analysis of the group of 539 patients with T1N0M0 glottic cancer treated with radiotherapy with curative intent in 1 institutes between 1977 and 2004. In 481 cases (89%) the tumor was limited to single vocal cord and in the remaining 58 involved both of them. Anterior commissure involvement was observed in 173 (32%) of the patients. According to the radiotherapy technique and fractionation schedule, we have divided patients into three separate groups: I - two oblique fields, TD 60 Gy/24 - 277 patients (51%); II - two opposite fields, TD 60 Gy/30 - 160 (31%); III - one lateral photon-electron beam, TD 60 Gy/30 - 102 (19%). The average time from laryngeal biopsy to the beginning of radiotherapy was 56 days (range: 3 - 145 days).

Results: The 5-year OS and 10-year OS were 84% and 69%, 5- and 10-year DFS were 90% and 88%, and the 5- and 10-year LC rates were 89% and 87%, respectively. One- dimensional analysis revealed following prognostic factors for LC and DFS: tobacoo smoking, radiotherapy technique, and the anterior commissure involvement. The 5- and 10-year LC rates in the group of patients smoking less than 20 cigarettes a day were 90% and 87%, compared to 76% and 70%, respectively, in the group smoking more than 20 cigarettes a day (p=0.01). Considering the RT technique, the lowest 5- and 10-year LC rates were observed in the group treated with opposite beams (80% and 78%, respectively), and the highest when the oblique fields were used - 91% and 88%, respectively (p=0.002). The tumor involvement of the anterior commissure decreased 5-year LC by 15% (92 to 77%), and 10-year LC rate by 19% (89 to 70%), respectively, p=0,000. The waiting time for the beginning of RT longer than 30 days from the biopsy was statistically significant poor prognostic factor for DFS and LC. 5- and 10- year LC rates in the group of patients who started RT during the period of 30 days from the biopsy were 92% and 90%, respectively, and in the group which started treatment after that time, these LC rates were 84% and 82%, respectively (p=0,01).

Conclusion: Radiation therapy is efficient method of treatment the T1N0M0 glottic cancer. Prolonged time of waiting for the beginning of RT decreases the LC and DFS rates.

EP-1106 A prospective novative docetaxel-based neoadjuvant chemotherapy for advanced head and neck cancer
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Purpose or Objective: To evaluate the overall response rate and access the toxicity for patients with locally advanced squamous cell carcinoma of head and neck (HNSCC) receiving a novative docetaxel-based outpatient neoadjuvant chemotherapy regimen.

Material and Methods: The inclusion criteria for this prospective study are (1)Age≥20 years old (2) Histologically proven squamous cell carcinoma of the oral cavity, oropharynx, hypopharynx, or larynx (3)Stage III or stage IVA or IVB without distant metastasis, (4) No prior chemotherapy given for HNSCC. (5) Physician’s intention to treat with docetaxel- baed induction therapy (6) Patients’ informed consent will be obtained. Tumor response for induction chemotherapy will be evaluated in patient with measurable disease according to institutional guidance. The induction chemotherapy regimen is a novative outpatient regimen. This regimen consists of cisplatin 60mg/m2 on day 1, docetaxel 50 mg/m2 on day 8, 5-Fu 2500 mg/m2 and leucovorin 250 mg/m2 on day 15, and methotrexate 30 mg/m2 and epirubicin 30 mg/m2 on day 21, cycles will be repeated for a total 3 to 4 cycles followed by surgery or radiotherapy. Responses rates will be reported using Response Evaluation Criteria In Solid Tumors (RECIST) criteria in patients with at least one measurable lesion. Toxicity will be recorded using the NCI-CTC v.4.03.

EP-1105 Impact of waiting time for treatment initiation on glotic T1N0M0 cancer radiotherapy results
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Purpose or Objective: The goal of this study is to evaluate the results of treatment of T1N0M0 glottic cancer with irradiation, with emphasis on the influence of time from diagnosis to the beginning of radiation therapy.

Material and Methods: We performed the retrospective analysis of the group of 539 patients with T1N0M0 glottic cancer, treated with radiation therapy in one institute in Poland.
Results: From September 2011 to December 2013, 80 patients were enrolled and two patients withdrew consent, finally 78 patients included for analysis. There were 73 male and 5 female. There were 96.2% of them had 0-1 WHO ECOG. For the primary site, 23(29.5%) patients were oral cavity, 26 (33.3%) patients were oropharynx, 24(30.8%) patients were hypopharynx, and 5 (6.4%) patients were larynx. Treatment compliance was well. There were 92.3% patients completed planned schedule. After the induction chemotherapy, the overall response rate were 92.3%, which included 37.2% complete response and 55.1% partial response, respectively. Only 2(2.6%) patients had stable disease and 1(1.3%) patient had progression disease. The response rate of oral cavity, oropharynx, hypopharynx, and larynx were 82.6%, 93.3%, 100%, 100%, respectively. There were 47.4% grade 3 or 4 neutropenia and 20.5% grade 3 anemia. Only 6 severe adverse event were report, including 4 febrile neutropenia with sepsis, one osteomyelitis, and one massive bleeding.

Conclusion: This outpatient docetaxel-based neoadjuvant chemotherapy regimen is a effective regimen in locally advanced squamous cell carcinoma of head and neck.

EP-1107 Impact of waiting time for treatment initiation on giotic T1N0M0 squamous cell carcinoma RT results A. Mucha-Malecka1, K. Urbanek1, A. Chróstowska1, K. Malecki2, P. Hebdzła3, J. Jakubowicz1
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Purpose or Objective: The goal of this study was to evaluate the results of treatment of T1N0M0 glottic cancer with irradiation, with emphasis on the influence of time from diagnosis to the beginning of radiation therapy.

Material and Methods: We performed the retrospective analysis of the group of 539 patients with T1N0M0 glottic cancer, treated with radiation therapy in the Center of Oncology in Cracow between years 1977 and 2004. In 481 cases (89%) the tumor was limited to single vocal cord and in the remaining 58 involved both of them. Anterior commissure involvement was observed in 173 (32%) of the patients. According to the radiotherapy technique and fractionation schedule, we have divided patients into three separate groups: I - two oblique fields, TD 60 Gy/24 - 277 patients (51%); II - two opposite fields, TD 60 Gy/30 - 160 (31%); III - one lateral photon-electron beam, TD 60 Gy/30 - 102 (19%). The average time from laryngeal biopsy to the beginning of radiotherapy was 56 days (range: 3 - 145 days). The overall survival (OS) and disease- free survival (DFS) were calculated using the Kaplan - Meier method. Log-rank test was used to calculate differences between each groups, and the independent prognostic factors were selected by the Cox multiparameter analysis.

Results: The 5-year OS and 10-year OS were 84% and 69%, 5- and 10-year DFS were 90% and 88%, and the 5- and 10-year LC rates were 89% and 87%, respectively. One- dimensional analysis revealed following prognostic factors for LC and DFS: tobacco smoking, radiotherapy technique, and the anterior commissure involvement. The 5- and 10-year LC rates in the group of patients smoking less than 20 cigarettes a day were 90% and 87%, compared to 76% and 70%, respectively, in the group smoking more than 20 cigarettes a day (p<0.01). Considering the RT technique, the lowest 5- and 10-year LC rates were observed in the group treated with opposite beams (80% and 78%, respectively), and the highest when the oblique fields were used - 91% and 88%, respectively (p=0.002). The tumor involvement of the anterior commissure decreased 5-year LC by 15% (92 to 77%), and 10- year LC rate by 19% (89 to 70%, respectively, p<0.000). The waiting time for the beginning of RT longer than 30 days from the biopsy was statistically significant poor prognostic factor for DFS and LC. 5- and 10- year LC rates in the group of patients who started RT during the period of 30 days from the biopsy were 92% and 90%, respectively, and in the group which started treatment after that time, these LC rates were 84% and 82%, respectively (p=0.01). Tumor interior commissure involvement was proven to be an independent prognostic factor affecting DFS and LC.

Conclusion: 1. Radiation therapy is efficient method of treatment the T1N0M0 glottic cancer
2. Prolonged time of waiting for the beginning of RT decreases the LC and DFS rates
3. The tumor involvement of anterior laryngeal commissure proved to be an independent adverse prognostic factor for LC and DFS

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Purpose or Objective: The aim of the present study is to analyze clinical outcomes and toxicity in patients with locoregionally advanced head and neck carcinoma treated with concurrent hyperfractionated radiotherapy with Cetuximab and Carboplatin.

Material and Methods: Forty-one patients (8 cases ST.III and 33 cases ST.IV) were prospectively included in this study from September 2009 to November 2014. Radiotherapy consisted in hyperfractionated radiotherapy: 1.15-1.20 Gy/fraction, BID, 5 days/week during 7 weeks. The average dose administered was 80.2 Gy (79.2-80.5). Carboplatin was administered 5 mg/m2 before each fraction of radiotherapy. Cetuximab was administered 400 mg/m2 one week before hyperfractionated radiotherapy and then 250 mg/m2 weekly while radiotherapy. Seven patients were not evaluable for response (in 3 patients, Capecitabine was added to the treatment; in 1 patient nodal metastases came from a papillary thyroid carcinoma; 3 patients were not evaluable for response because 2 patients died within 30 days after treatment and 1 patient has not enough follow-up to be evaluated for response).

Results: All but 2 of the 34 evaluable patients showed objective response (19 complete responses). The local relapse-free survival, cause specific survival, and overall survival was 58.7%, 57%, 49% at 5 years, respectively. Severe (Grades II/III) acneiform rash resulted predictive of Clinical Response (p=0.005), Local relapse (p=0.008), distant metastases (p=0.012) and tumour related dead free survival (p<0.0001). Severe (Grade III) acute cutaneous and mucosal toxicity was present in almost 60% of the cases.

Conclusion: This protocol induces a high rate of clinical responses and excellent survival figures in patients developing an strong immune response after combined radio- chemoimmunotherapy.

EP-1109 Role of adjuvant EBRT for papillary thyroid carcinoma invading the trachea: a single-institution study
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The aim of this study was to evaluate the clinical outcomes and to analyze toxicity in patients with papillary thyroid carcinoma invading the trachea.