

45 years). Thirteen had WHO type 1.4 had type 2 and 36 had type 3 carcinomas. Radiographic approach consisted of x-ray views of the skull in 14 and CT and/or MRI in 39. Thirty-six had cranial nerve involvement. 39 base of skull erosion and 12 intracranial extension. Four had N1, 10 had N2 and 18 had N3 nodal involvement. External beam radiation therapy consisted of 50 to 70 Gy (median 70 Gy) to primary tumor and 50 to 74 Gy (median 70 Gy) to involved nodes, delivered in 2 Gy daily fractions. Sixteen patients received 1 to 3 (median, 2) fractions, each of 5 Gy, of HDR intracavitary brachytherapy boost. Ten received neoadjuvant and 21 concurrent chemotherapy. Ultrasound hyperthermia was applied to 8 patients with N2-3 involved nodes.

Results: Follow-up ranged from 0.2 to 9.6 years (median, 1.8 years). Complete primary tumoral response was achieved in 39 out of 50 and complete nodal tumoral response in 28 out of 33 evaluable patients. Overall survival (OS) and disease-free survival (DFS) were 42.4% and 39.8%, respectively, at 2 years and 28.9% and 29.0% at 5 years. There were 9 primary and 1 primary and nodal tumoral failures among patients exhibiting complete response. There were 13 systemic failures among all patients. In univariate analysis, cranial nerve involvement and addition of chemotherapy were significant prognostic factors for OS and there was not any significant prognostic factor for DFS. In multivariate analysis cranial nerve involvement was the only significant prognostic factor for OS and there was not any significant prognostic factor for DFS.

Conclusion: In patients with T4 nasopharyngeal carcinomas, cranial nerve involvement appears to be the only clinically significant prognostic factor.

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POSTER

Long-term results of chemotherapy in advanced thyroid carcinoma

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The prognosis of most patients (pts) with differentiated thyroid carcinoma (CA) treated with surgery plus ^{131}I is excellent. However, pts with advanced differentiated CA (T3-4 or N1) and those with medullary and undifferentiated CA face a poor prognosis. From 1984 to 1996, 87 cases of thyroid CA have been treated in our institution, including 11 with advanced differentiated CA (papillary 8, follicular 2, Hürthle cell 1), 3 with medullary CA and 3 with undifferentiated CA. Median age: 51 years (26-77). Sex (male/female): 7/11. **Advanced differentiated CAs:** All pts had thyroidectomy (total in 3, partial in 8) upfront. Postoperative therapy included none in 1 pt (NED at 112 mo), chemotherapy (CHT) in 2 (bulky disease devoid of ^{131}I) in 8 pts (2 in CR at 43 and 100 mo and 6 relapses after CR at 4 to 43 mo, 2 treated with repeated ^{131}I (in pr at 29 and 76 mo), 1 with no therapy (died at 14 mo) and 2 with CHT). Overall, 4 pts, all with measurable disease, were treated with CHT (adriamycin, vincristine, bleomycin) (ABV). All responded (2 CRs and 2 PRs, lasting 12, 59, 88+, 115+ mo). Two of these pts received external radiotherapy after response and 1 received ^{131}I . Two pts are alive at 122 and 156 mo and 2 died at 68 and 104 mo. **Medullary CA:** 2 pts presented with distant metastases and 1 developed them 57 mo after total thyroidectomy. Therapy: none, 1 pt (died at 4 mo); CHT (Ad/platin) (2 pts, both with PR) (1 alive at 3 mo, 1 died at 101 mo after PR to 3 lines of CHT). **Undifferentiated CA:** All 3 pts were treated with CHT (ABV in 1 with no response and death at 6 mo and Ad/platin in 2 with 1 death at 1 mo and 1 PR lasting 5+mo). Adriamycin-based CHT is active in differentiated thyroid CA after relapse to surgery plus ^{131}I . Integration of CHT in the upfront management of selected pts with advanced differentiated thyroid CA is a reasonable approach.

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PUBLICATION

Dose escalation in accelerated hyperfractionation for advanced head and neck cancer

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Purpose: Accelerated tumor repopulation during radiotherapy of head and neck cancer may worsen the possibilities of local tumor control. This can be compensated by dose escalation in accelerated hyperfractionation.

Methods: 50 untreated patients with locally advanced head and neck SQ.CA received (1.2 GY BID 2 weeks- 1.4 GY BID 2 weeks 1.6 GY BID 1.5 weeks) Total 74.4 GY immediate loco-regional response was assessed 6 weeks from the end of therapy.

Results: C.R. was achieved in 62%, P.R. was achieved in 38%. The 2 year overall survival was 67.1% and the 2 year disease-free 57.8% survival was immediate loco-regional response and survival were affected by the primary tumor site tumor size and continuity of treatment the treatment was well tolerated by the majority of patients, mucositis led to interruption of treatment in 22% cases.

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PUBLICATION

Primary reconstruction after ablation of oral cancer – Effects on soft tissue function and life quality

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Purpose: The aim of the present prospective study was to evaluate the functional sequelae of intraoral tumor surgery and their impact on postoperative development of quality of life.

Methods: 40 consecutive patients had received ablation of squamous cell carcinoma of the floor of the mouth with immediate reconstruction of intraoral soft tissues after tumor resection by local (n = 27) and revascularized flaps (n = 13). Mobility of oral soft tissues was determined by ultrasound. Quality of speech was analyzed using the Freiburg Speech intelligibility test. Life quality of cancer patients was assessed by the functional living index/cancer (FLIC). All patients were evaluated preoperatively and 6 months after intraoral tumor surgery.

Results: A significant decrease in both the mobility of the tongue and the quality of speech was registered postoperatively. The most substantial effect on quality of speech resulted from decreased movement of the radix and the dorsum of the tongue. A significant postoperative increase in life quality occurred only in the group of patients without substantial reduction of intelligibility of speech, while no significant improvement of postoperative life quality of patients with more severe deterioration of speech quality was found.

Conclusion: Postoperative quality of speech has a significant effect on life quality after resection of oral cancer.

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PUBLICATION

The arteriography technique of the thyroid cancer complex diagnosis

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Purpose: The diagnosis of the thyroid cancer is difficult especially when the dimensions of tumor are very small or the primary manifestation of malady only from regional or distant metastasis. For solution of this problems had been used the diagnostic arteriography of the thyroid.

Methods: There were 41 thyroid arteriography: 20 – the selective aneurysm, 21 – the brachiocephalic general trunk. The diagnostic criterion of tumor malignant was definition of the thin network of vessels lesion in arterial phase (TNVL APH) or homogeneous contrast of tumor in capillary phase of study.

Results: All patients were divided in 2 groups: I Gr. – 25 patients with diffusive increase of thyroid lobe (conform clinical, ultrasonography and scanning). By arteriography was detected TNVL APH Ø 1.0–3.0 cm in 12 patients; II Gr. – 16 patients with lesion of lymphatic nodes – occult thyroid carcinoma. Confirm arteriography was detected primary tumor Ø 0.4–1.5 cm.

Conclusion: The arteriography is a very sensitive technique in the detection of small dimensions and occult thyroid cancer.

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PUBLICATION

Successful treatment with paclitaxel/5-FU and simultaneous radiation in advanced H&N carcinoma

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Introduction: Paclitaxel (P) a new plant product has demonstrated significant antineoplastic activity in H&N tumors (ECOG study: 40%). Therefore we performed a trial with P/5-FU and simultaneous radiation in an neoad-

Juvariant and postoperative adjuvant setting of stage III–IV squamous cell carcinoma of the H&N.

Treatment Schedule: 25 pts with a primarily inoperable stage III and IV of SCC of the H & N were included. Karnofsky-Index 80–100. All pts received on day 1 and 29 P 175 mg/m² as a 3-hour infusion, followed by a 24-hour-CVI of 1000 mg/m² 5-FU for 5 days. Locally irradiation was given ad 40 Gy (2 Gy/d/day 1–26). Operative intervention followed about day 56. Postoperatively pts received again 2 cycles of P/5-FU and simultaneous irradiation with 30 Gy.

Results: So far 25 pts were treated. Hematologic and non hematologic toxicity was mild and distinctly less compared with standard combination DDP/5-FU. There was no WHO grade III–IV toxicity. Tumor resection about day 56 was done in 23/25 pts. No active tumor was found in 13/23 pts in the primary tumor as well as in 11. 22/25 pts are at time disease free for a follow up of 4–24 mos. 1 pt refused surgery and relapsed after 11 mos. 2 pts developed a second neoplasia (esophagus and bronchogenic cancer) after 11 + 14 mos.

Conclusion: The treatment of SCC of the head and neck with P/5-FU and simultaneous radiation and operative intervention is a highly effective schedule with very moderate toxicity. The results of the ongoing study are encouraging.

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PUBLICATION

Chemoprevention with Interferon alfa and 13-CIS retinoic acid in patients with advanced head and neck cancer

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Purpose: A lot of chemopreventive treatments with retinoids are discontinued because of the toxicities associated with a higher dose of these drugs. In-vitro experiments have shown that it is possible to reduce the retinoid dosage without decrease of antitumor activity when interferon alfa is injected simultaneously. Aim of our phase-II-study was it to investigate the toxicity profile of this combined treatment.

Material and Methods: Between 1993 and 1995 50 patients (41 men, 9 woman, median age 57 years) with a head neck cancer stage IV of UICC were integrated into the study. All patients got 3 times the week 3 mio IU Interferon alfa sc and 0.5 mg/kg body weight per day 13-cis retinoic acid. The treatment was completed after 6 month or in the case of side effects grade 3 or 4 of WHO or in the case of tumor progression. At the start of the adjunctive treatment all patients had no clinical sign of tumor. Clinical picture and paraclinical data were investigated every 6 weeks. The local and distant control of the tumor disease were examined every 3 month.

Results: The treatment was interrupted in 5 out of 50 patients because of treatment toxicity. In 13 patients the therapy was finished previously because of cancer progression. The local tumor control is 72% after 12 month, 66% after 24 month, and 58% after 36 month. The rate of distant metastasis is 2% after 12 month, 6% after 24 month, and 8% after 36 month. Second malignancies were not observed at the follow-up time of 36 month. The typical side effects of 13 cis retinoic acid were xerostomia in 60%, dysphagia in 66%, cheilitis in 70%, all of these side effects were moderate. The minimal toxicities of interferon were anemia (20%) leucocytopenia (34%) and increased body temperature (54%).

Conclusion: The combined chemopreventive therapy with interferon and 13-cis retinoic acid is acceptable for patients with advanced head and neck cancer. The therapy is characterized by a high level of patients compliance and improves the prognosis of this high risk group.

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PUBLICATION

Immediate results of the locally advanced larynx cancer T₃₋₄N₀₋₃M₀ treatment using non-conventional dose fractionation radiotherapy

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Purpose: To improve the effectiveness of the locally advanced larynx cancer T₃₋₄N₀₋₃M₀ treatment and the patient life quality.

Methods: Two groups of primary patients were treated & analyzed. The 1st group – 22 patients were irradiated with 64.2 Gy of total dose:

- 1 week 1.7 Gy × 2 fr./day, 6 h interval, 5 days/week;
- 2 and 3 week 1.0 Gy × 2 fr./day, 6 h interval, 5 days/week;
- 4 and 5 week 1.7 Gy × 2 fr./day, 6 h interval, 5 days/week.

The 2nd group – 68 patients were treated with 70 Gy of total dose by

conventional fractionation. 1st group: T₃N₀M₀ – 13 pts, T₃N₁M₀ – 5 pts, T₃N₂M₀ – 2 pts, T₄N₀M₀ – 2 pts. 2nd group: T₃N₀M₀ – 42 pts, T₃N₁M₀ – 21 pts, T₃N₂M₀ – 3 pts, T₄N₀M₀ – 2 pts.

Results: After radiotherapy 12 pts of 1st group (54.5%) and 17 pts of the 2nd group (25.0%) had full tumor regression.

Conclusions: The non-conventional dose fractionation of radiotherapy has significant antitumor activity and improves patient life quality. In general all patients satisfactory carried out the new regimen of radiotherapy.

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PUBLICATION

Phase I–II study of simultaneous radiotherapy and paclitaxel (taxol) in a twice a week (TIW) schedule for recurrent squamous cell carcinomas of the head and neck (SCCHN)

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Purpose: Taxol has a significant single agent activity in SCCHN and a synergistic activity with irradiation has been demonstrated in preclinic models. Therefore this study investigated the max tolerated dose (MTD) of taxol (tiw) in combination with simultaneous normal fractionated radiotherapy and the anti-tumor activity in pre-treated and recurrent SCCHN.

Method: 16 patients pretreated with surgery plus adjuvant irradiation alone (2/16) or combined with chemotherapy (14/16) were enrolled. **Schedule:** Taxol was escalated in cohorts of 3 patients (20/30/35/40/45 mg/m²) given two times a week for 8 doses with concomitant irradiation daily (d1–d28; 30–46 Gy depending on prior irradiation dose).

Results: Toxicity (% pts): mucositis °3 (12%), °2 (62.5%), °1 (25.5%). No further toxicity was observed. The MTD in this schedule is unexpectedly high and not yet reached. **Response:** PR 13/16 patients (81%), MR 3/16 patients (19%), 0/16 patients had progressed (during treatment).

Conclusions: In the presented schedule the combination of radiotherapy and taxol is well-tolerated and possible in an outpatient setting. The tumor response rate in this heavily pretreated patients is very high and justifies a comparison of radiochemotherapy versus radiotherapy alone after definition of MTD.

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PUBLICATION

Useful or useless? B-scan sonography of malignant cervical lymph nodes during primary radiotherapy (RT) for squamous cell carcinoma of the head and neck

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Purpose: Sonography (SONO) is considered a valuable tool in assessment of head and neck tumors. In contrast, SONO is only rarely used during RT. For 2 years, we scan cervical lymph nodes (LN) with SONO during RT for various tumors. Below, we report about our experiences with SONO of LN's during RT for head and neck carcinoma (HNC).

Methods: A total of 27 LN's (20 patients) were examined. All pat. had advanced squamous cell HNC. 5 pat. received radiotherapy alone (46–70 Gy total dose), and 15 were treated with radiochemotherapy (70 Gy total dose, two courses of fluorouracil and mitomycin). We used a 7.5 MHz ultrasound probe. Sonomorphological and volumetric changes of LN's and clinical utility were analysed.

Results: The margins of all LN's became progressively fuzzy. The remaining sonomorphologic parameters were constant. Volume before and during RT varied on a large scale. Thus, pretherapeutic volume reached from 1 to 41 cm³ and the time volume 50%, i.e. time until volume had decreased by 50%, reached from 8 to 55 days. SONO could always be used for therapy monitoring and nearly always (15/20 pat.) for treatment planning.

Conclusion: SONO of LN's during RT of advanced HNC is a valuable examination. It can be used for therapy monitoring and treatment planning. Invasive and expensive methods can be saved. In our estimation, SONO should be used more often during RT. Future research with respect to newer sonographic methods like high resolution SONO, color duplex SONO or power doppler is required.