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## Intraarterial Chemotherapy as Valid Therapeutical Alternative to Systemic Chemotherapy in Advanced Head and Neck Cancer Patients

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## Introduction

Treatment of patients with advanced stage head and neck cancer appears to be challenging specially in consideration of life quality<sup>1</sup>. In case of metastases or relapsing cancer, palliative care plays a crucial role. Up to date surgical cancer debulking, radiotherapy, and systemic chemotherapy are state of the art in palliative therapy<sup>2</sup>. With the intraarterial chemotherapy we present a new approach for palliative care patients with head and neck cancer.



**Patients and Methods** 

By applying chemotherapy directly to vessels supplying the neoplasia, tissue levels of therapeutic agents are up to 100 fold higher than in systemic chemotherapy<sup>3</sup>. Subsequently hemodialysis is performed for decreasing of systemic side effects.

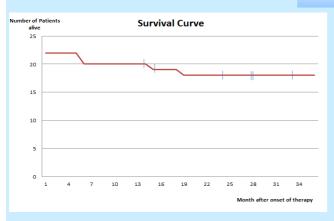
A total of 22 Patients were included with an average age of 55 years. 16 patients appeared to be in cancer disease stage 4, three in stage 3, and three in stage 2, respectively. For the determination of clinical course and adverse effects blood values (hemoglobin, leucocytes, thrombocytes, cardiac-, kidney-, and liver-markers) Karnowski Index, pain severity score, number of chemotherapies, survival rate, hospitalization and postoperative complications were evaluated.



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Pictures of a clinical course in a patient with carcinoma of the parotid gland. Pic. 1 shows the pre-therapeutic finding, pic. 2 and 3 after the 1<sup>rst</sup> and 2<sup>nd</sup> cycle of therapy. In pic. 4 the decaying malign lesion is surgical resected after the 3rd therapeutic cycle.



Results

Five out of 22 Patients died from cancer, one after a car accident. The average follow-up time was 38 month. Patients who did not survive were in stage 4 disease each and had an average survival time of 11 month after onset of therapy. Remaining patients are still alive and on average in the 46<sup>th</sup> month after onset of therapy. On average five cycles of local chemotherapy were performed, after which Karnowski Index (67,5 vs 64) and pain score (1,4 vs. 1,4) were stable when compared to pre-therapeutic findings. Blood values showed no significant worsening. As intraoperative complications carotic dissection was seen in two cases and lymph fistula in three cases, respectively.

Table 1: Survival chart for the first 36 month after onset of therapy. Five patients died from cancer and one from a car accident.

## Conclusion

We could show good results in clinical course, survival time and self-dependent living for patients in advanced stage cancer with intraarterial chemotherapy. We therefore recommend research in a higher number of patients and randomized controlled trial studies.

- 1) Mc Corkle et al: An Advanced Practice Nurse Coordinated Multidisciplinary Intervention for Patients with Late-Stage (...) J palliat
- medicine 2015 Aug 25
- Kawetzki et al: Follow-up in patients treated for head and neck cancer, Memo. 2014;7(2):87-91
  Aigner et al: Regionale Therapie maligner Tumoren, Springer 2013

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