5546 POSTER

Microsurgical reconstruction of orofacial region in the treatment of malignant tumors

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Background: Purposes – functional and social rehabilitation improvement of patients after eradication of locally invasive oral cavity malignant tumors.
Materials and Methods: Method of orthotopical microsurgical reconstruction of orofacial zone tissues is used after eradication of malignant tumors using morphofunctionally homogeneous autotissues. 234 patients got the treatment. 101 (43%) patients had primary tumors, 110 (46.2%) – recurrent, 23 (9.8%) – postsurgical defects. 179 (76.8%) patients had epithelial tumors including symbol T4 – 58.1%. Resection of scull base was made in 32 (14%) cases. For reactivation of natural feeding and correction of 147 (63%) orofacial defects, 32 (14%) cranioorofacial defects, 50 (21%) oroorbitofacial defects, 5 (2%) isolated mandible defects 266 autotransplants were used. Immediate reconstruction was in 74% of cases, deferred repair – in 26%.
Visceral – 36 gastroepiploic and 42 coloepiploic flaps were used to correct the defects of mouth floor tissues, oropharynx and cheek; 92 rib-musculocutaneous – to correct oroorbitofacial and orofacial defects, 5 fibular flap – to correct isolated mandible defects, 10 iliac autotransplants was used to correct total hard palate defects, 49 musculocutaneous and 27 fasciocutaneous radial flaps to correct small oral cavity, cheeks, lips defects; 5 osteocutaneous radial for alveolar bone repair. 2 and more autotransplants were used for reconstruction in 14 cases.
Results: Postoperative complications – 58 (25%) of patients. Mortality – in 2.8% of cases. Total flap necrosis as a result of microvascular anastomosis thrombosis – 12 (5.2%) patients. Plasty was successfully complete in 98.4% of cases. Natural feeding was reactivated in 88.6% of patients. 93.2% of patients were satisfied with the cosmetic result and 31.85% returned to labour.
Conclusions: The research showed advisability of the method of orthotopical repair of oral cavity tissues with morphofunctionally homogeneous autotissues and microsurgical autotransplantation that helps to solve main issues of major combine oral cavity defects anaplerosis of oncological patients and reach a good functional result.

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Postoperative concurrent chemo-radiotherapy with a modified cisplatin schedule in high-risk squamous-cell carcinoma of the head and neck (HNSCC)

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Background: Postoperative concurrent chemo-radiotherapy has become a standard of care in high risk HNSCC patients. The administration of cisplatin with RTOG schedule (100 mg/m^2 q 21 for three cycles) concomitant to standard radiotherapy (60 to 66 Gy) showed to improve the local and regional control and disease free survival compared to radiotherapy alone in two phase III trials. However a substantial increase of G3 and G4 mucosal, gastrointestinal and hematologic toxicity has been observed and toxic deaths occurred. This pattern of toxicity superimposes to select patients challenged to these aggressive treatments.
Material and Methods: the present phase II study aimed to evaluate the feasibility and outcome of a modified cisplatin schedule (30 mg/m^2 weekly, for 7−8 weeks) concurrent to standard radiotherapy (60−66 Gy with 1.8 daily fractions) as postoperative treatment in high risk HNSCC.
Results: Between January 2004 and December 2006 31 patients undergone to surgery for HNSCC with N2-N3 disease, extracapsular node spread, microscopic involved margin of resection with a PS ECOG 0−1 were enrolled; enrolment is still ongoing and this is a preliminary evaluation of toxicity and outcome. Among 24 evaluable patients compliance to treatment was high and 86% of patients completed the planned chemotherapy. Acute toxicity was low; we observed 33% of G3-G4 mucositis and 14% of G3-G4 neutropenia. Nausea and vomiting were <10%. Prevalent late toxicity were xerostomia (4%) and dysphagia (17%).
At this preliminary evaluation of results the median follow up is 4 months and median survival and median time to progression have not been reached yet. 19 patients are still alive and 16 patients are disease free. We observed seven loco-regional relapse and one distance (lung) relapse.
Conclusion: Weekly cisplatin administration concurrent to standard radiotherapy as adjuvant treatment in HNSCC with high recurrence risk is well tolerated and feasible possibly even in patients unfit for a standard dose cisplatin chemotherapy. A longer follow up is needed in order to evaluate overall survival and progression free survival.

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Circulating hormone levels and prognosis in head and neck cancer

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Background: Head and neck squamous cell cancer (SCCHN) is characterized by rapid progression and poor prognosis. The most reliable prognostic factors are tumor (T) and node (N) stage. There is some evidence that circulating hormone levels might predict prognosis in SCCHN. The aim of this study was to assess hormone levels in 289 male patients and evaluate them in association with the clinical parameters.
Methods: Age, primary tumor site, tumor stage, histologic grade, and serum levels of estradiol (E2), progesterone (PROG), testosterone (TE), dehydroepiandrosterone (DHEA), dehydroepiandrosterone sulfate (DHAS), steroid hormone binding globulin (SHBG), follicle-stimulating hormone (FSH), luteinizing hormone (LH) and prolactin (PROL) of 289 patients operated for cancer of the oral cavity, oro-, and hypopharynx and the larynx in one cancer center were recorded. The median follow-up was 37 months (19−71).
Results: Age <46 y vs.older ($p = 0.0055$), stage I-II vs.III ($p = 0.014$), and stage III vs.IV ($p = 0.0004$), N0 vs. N+ stage ($p < 0.0001$) and Gr. I-II vs. Gr. III histology grade ($p = 0.03$) were of prognostic improtance. Of the hormones studied, lower than normal levels of TE ($p = 0.02$), TE/SHBG ($p = 0.0031$) and DHAS ($p = 0.04$), as well as high levels of FSH ($p = 0.022$), LH ($p = 0.0083$) and PROL ($p = 0.0043$) predicted poor prognosis.
In multivariate analysis of all cases, T stage, N stage and grade proved to be independent prognostic factors, PROL level had borderline significance ($p = 0.07$). In the N0 stage subgroup PROL ($p = 0.0013$), and in the N+ stage subgroup histology grade ($p = 0.0004$) and TE ($p = 0.0053$) emerged as independent prognostic factors by multivariate analysis.
Conclusion: Our results suggest that abnormal levels of some circulating hormones in head and neck cancer predict worse survival, therefore hormonal imbalance cannot be excluded to have a role in the course and/or development of SCCHN.

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Anaemia during radical chemo radiation for head and neck cancer: cost analysis of treatment

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Background: A study was performed to review the incidence of significant anaemia (haemoglobin < 12g/dL) and perform a cost comparison of erythropoietin (EPO) versus blood transfusion for treatment of anaemia, in the head and neck cancer patients treated with radical chemo-radiotherapy.
Methods: Patients treated between 2001–2005 for Squamous cell carcinoma of the Head and Neck region formed the basis of this study. Haemoglobin (Hb) concentrations were documented prior to and during each cycle of neo-adjuvant chemotherapy, and during radiotherapy. Patients received blood transfusions to correct anaemia (Hb < 12 g/dl). The total number of units transfused and their cost was calculated. Assuming that the patients received erythropoietin instead of blood transfusion (once the haemoglobin level fell below 13 g/dL for males and 12 g/dL for females), the difference between the cost of blood transfusion and EPO was estimated.
Results: 169 patients were identified. The incidence of anaemia was 39% (grade I: 35%, grade II: 4%) during neo-adjuvant chemotherapy. During concurrent chemo-radiation the incidence was 81% (grade I: 73%, grade II: 8%). 74 patients required blood transfusion. 14 (8%) patients required transfusion during or immediately after neo-adjuvant chemotherapy, with 35 units of blood used. 67 (40%) patients had haemoglobin levels below 12 g/dL and required a blood transfusion during radiotherapy, with 208 units being transfused.
A total of 243 units of blood were transfused, with an estimated cost of £35,175. If EPO had been used the total cost would have been £176,400 (costed at 10,000 U three times a week). Therefore the excess cost of using EPO is estimated at £141,225 over the period of the study.