

vs greater than 6.4 U/gHb). These results indicated that G6PD-abnormal or -deficient individual may predispose NPC, and may be resulted in poor prognosis. The underlying mechanisms of low G6PD patients more susceptible to oxidative damage, and of the effects to radiotherapy will be further delineated.

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POSTER

Temporal relationship between serologic Epstein-Barr (EB) viral antibodies and treatment outcome in nasopharyngeal carcinoma

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Purpose: Literature has reported the importance of anti-EB viral capsid & early antigen (VCA&EA) antibodies as tumor markers of NPC. There are, however, controversial points with respect to clinical significance of anti-EB VCA immunoglobulin A, G (IgA, G) and anti-EBEA titers in the serum. In a prospective study the value of these antibodies in predicting the prognosis of NPC was evaluated.

Methods: One hundred and sixty two irradiated non-metastatic patients were recruited between 1994 & 1996. Indirect immunofluorescent assay of antibody was applied on serum samples collected before & after RT & every 3 months in the following 2 years.

Results: Patients with undifferentiated carcinoma or neck node of greater than 6 cm yield significantly higher level of mean pre-RT anti-EBEA antibody than patients with non-keratinizing carcinoma ($P = 0.0386$) or neck node of ≤ 3 cm ($P = 0.0099$) while post-RT serologic level of VCA IgA remained to be the only independent anti-EB factor in predicting complete remission rate (>160 VS ≤ 160 , odds ratio = 3.91, $P = 0.008$). Two year recurrence free survival rates were relatively high in patients with low (≤ 160) anti-EBEA titers measured at 3.6 and 12 months post-RT ($p = 0.0002$, 0.0337 & 0.0001 respectively).

Conclusion: Post-RT anti-EBVCA IgA level correlated well to treatment response while anti-EBEA antibodies before RT and during follow up period may help in predicting nodal status, pathologic types & 2 year recurrence free rates.

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POSTER

Clinical relevance of urokinase-type plasminogen activator (uPA) and its inhibitor PAI-1 in oral squamous cell carcinoma (OSCC)

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Purpose: Invasion and metastasis in solid, malignant tumors require tumor associated proteases to dissolve the surrounding tumor matrix and the basement membranes. The serine protease uPA and its inhibitor PAI-1 play a key role in these processes. Several independent studies on different kinds of cancer (e. g. breast, ovary, kidney) prove the prognostic value of uPA and PAI-1. Elevated levels of uPA and/or PAI-1 predict poor outcome of cancer patients. For oral squamous cell carcinoma, however, the possible prognostic relevance of tumor-associated proteolytic factors to the malignant process has still to be evaluated.

Methods: In the present study we used enzyme-linked immunosorbent assays (ELISA) to determine uPA and PAI-1 antigen concentrations in primary tumor tissues of 47 patients afflicted by oral squamous cell carcinoma.

Results: Patients with either high PAI-1 (<27.61 ng/mg protein) or uPA (5.41 ng/mg protein) contents in their primary tumors have an increased risk of relapse (uPA: $p = 0.02$; PAI-1: $p = 0.006$). Patients whose primary tumors have lower levels of these antigens have a lower risk than patients with high uPAI-1 and PAI-1 concentrations. Statistical analysis revealed uPA and PAI-1 to be independent from classical morphohistological prognostic factors.

Conclusion: In OSCC uPA and PAI-1 are strong and independent prognostic factors which allow us to identify high risk patients. Both uPA and PAI-1 might help us to improve the individual oncological therapy. uPA and PAI-1 could become new targets in cancer therapy.

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POSTER

Causes of interruption of radiotherapy in nasopharyngeal carcinoma patients

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Purpose: In the past few decades, NPC researches have primarily focused on diagnosis and treatment while few studies have assessed why some patients fail to complete the recommended full-course radiotherapy. This study is to explore the factors involved in patient's decision to discontinue treatment and the outcome.

Materials and Methods: A total of 3,273 nasopharyngeal carcinoma patients were treated in a span of 18 years from 1979 to 1996. Of these, 276 did not complete the full-course treatment of radiation therapy. The medical records of these patients were studied to determine the contributing factors for treatment interruption.

Results: Of the 276 patients whose treatment were interrupted, 120 (43.5%) were unable to endure the acute side effects of radiation therapy and afraid of possible complications from the treatment; 57 (20.7%) had doubt on the diagnosis or had the subjective perception that the treatment will be ineffective in view of the severity of their disease; 50 (18.1%) resorted to folk prescriptions; 17 (6.2%) were due to the socioeconomic problems; 15 (5.4%) reverted to have treatment in other hospitals for transportation consideration. Five-year survival rate on these patients was 10%, with median survival of 1.2 years.

Conclusions: This finding suggests that more attention should be paid to providing care with regard to side effects of the procedure and to reinforcing pre-treatment education. Given the fact that poor prognosis in these patients, clinicians, working together with medical staff as a team, should provide patients with adequate support so that their pressures to cope with the social, economical, psychological and educational aspects of NPC will not be obstacles to the completion of radiotherapy.

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POSTER

The role of definitive radiation therapy for larynx preservation in patients with advanced laryngeal cancer

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Background and Purpose: Recently, neoadjuvant chemotherapy (CT) and radiation therapy (RT) have been advocated as a standard treatment for laryngeal preservation in patients with locally advanced laryngeal cancer. However, it is still being debated whether adding neoadjuvant CT to conventional RT makes an effective contribution to laryngeal preservation. The current study was designed to resolve this controversy.

Materials and Methods: Eighty patients (stages III, IV) with squamous cell carcinoma of the larynx were divided into two groups according to treatment modalities, which consisted of RT alone ($N = 40$, Group I) and neoadjuvant CT plus RT ($N = 40$, Group II). Comparative analysis was undertaken in order to investigate the differences in the organ preservation rate and treatment results between the two groups.

Results: There was no significant difference in the response rate and patterns of treatment failure between the two groups. The five-year survival rate was similar between Group I (24%) and Group II (31%) ($P = 0.1556$). In addition, the larynx was almost equally preserved in Group I (62%) vs. Group II (63%).

Conclusion: RT without neoadjuvant CT seems to be a valid alternative treatment for the purpose of laryngeal preservation in locally advanced laryngeal cancer.

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POSTER

Impact of radical or non-radical surgery combined with postoperative radiotherapy of the oral cavity cancer on treatment outcome

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Purpose: To evaluate relationship between degree of macro – and/or microscopic radical or non-radical surgery and postoperative radiotherapy on treatment outcome of the patients with oral cavity cancer.