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Severe cutaneous side-effects following radiation therapy in head and neck cancer patients treated with cetuximab

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Recent randomized studies demonstrated the efficacy of cetuximab in the treatment of head and neck cancer (HNC) patients [1]. Cetuximab has recently received approval in Europe and the USA for treatment of HNC. We report two cases with severe radiation dermatitis in HNC patients under high dose radiotherapy plus cetuximab.
A 57-year-old female and a 50-year-old male presented with locoregionally advanced HNC (squamous cell carcinoma, cT3, cN1, cM0, G2) and were treated with radiotherapy. To improve locoregional control [2], patients received concomitant cetuximab. The female patient received radiotherapy with 6 MV photons in conformal 3-D-optimized technique to a total dose of 58 Gy (29 daily fractions of 2 Gy). In 2001, the female patient developed only a mild erythema after radiotherapy with 50.4 Gy (28 daily fractionations of 1.8 Gy) to her left upper thorax for breast cancer (T2M0N0). In 1999, the male patient had initially been irradiated due to HNC (Squamous cell carcinoma of the larynx; pT2pN1pM0) with a total dose of 66.6 Gy (daily doses of 1.8 Gy) and developed a mild erythema. In 2007, the patient presented with a squamous cell carcinoma of the tongue (cT3, cN0, cM0; G2) and was treated with radiotherapy. Both patients developed erosive dermatitis confined to the irradiation field at a dose of 40 Gy. Histopathological analyses showed signs of acute cytotoxic dermatitis with vacuolic degeneration of basal keratinocytes and subepidermal blister formation together with a mixed perivascular and interstitial inflammatory infiltrate composed of lymphocytes, histiocytes, neutrophils and eosinophils. No aggravation of cutaneous side effects during radiation therapy in combination with cetuximab has been reported. In fact, Bonner et al. recently demonstrated no severe radiation dermatitis during the combination of radiation therapy and cetuximab, although dose regimens were comparable [2]. The two cases presented here suggest that concomitant cetuximab administration may worsen cutaneous side effects during radiotherapy. Therefore, data from all performed studies using this regimen should be re-evaluated closely in order to obtain sufficient data about the safety of this protocol.

References

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Long term quality of life and psychological response after surgery and radiotherapy in head and neck cancer patients

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Aim: This study was aimed to assess, in head and neck cancer survivors, treatment impact on quality of life and psychological functioning, particularly after facial disfigurement determined by surgery and radiotherapy.
Methods: Thirty-two surgery and radiotherapy cancer patients were enrolled. All patients underwent to major ENT surgery, with pedicle or free flap reconstruction and adjuvant radiotherapy. Patients were submitted to a broad test battery 12 month after the end of radiotherapy, during a follow up otorhinolaryngological visit.
Long-term outcome on quality of life (QOL) was assessed by EORTC QLQ C30, including the Head and Neck Cancer module (H&N35). Psychological symptoms were evaluated by MADRS, HADS, HAM-A to rate depression and anxiety; MINI-MAC to assess the psychological adjustment to cancer; Karnofsky Performance status to determine patients functional impairment. Severity and characteristic of pain, when present, were assessed by a visual analogue (VAS) and QUID. Personality profiles of patients was investigated by TCI, to evaluate if specific personality traits could be associated to higher risk of poor quality of life and depression in cancer survivors.
Results: In our sample, low levels of anxiety and depression were observed (HADS-A mean 5; HADS-D mean 4.5; MADRS mean 7.2; HAM-A mean 9.8), associated with high performance status (KPS mean 89%). MINI-MAC scores suggested that patients were able to adopt functional and adaptive coping styles, with higher fighting spirit (mean 3.1), fatalism (mean 2.8) and negation (mean 2.8). Patients reported high levels of quality of life (EORTC global QoL mean 75.7) and perceived health status (EORTC global health mean 76.4). Peculiar personality profiles were observed, probably related to pre-morbid conditions and illness experiences.
Discussion: Our preliminary data suggest that head and neck cancer patients do not necessarily experience poor quality of life and depression during 12 follow-up period. However, caution is recommended: in this peculiar population, these encouraging findings could partially reflect low insight.

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Video-assisted minimally invasive thyroidectomy for tumour of thyroid

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Background: Conventional open thyroidectomy has disadvantage of a big visible scar, short of cosmetic results.Via breast path laparoscopic thyroidectomy is lack of a neck scar, but still has big trauma with need of insufflation. Furthermore, radical cervical lymphadenectomy may be difficult when malignant nodule is revealed by frozen section. This paper is to evaluate the results of minimally invasive video-assisted thyroidectomy (MIVAT).
Materials and Methods: 95 consecutive Chinese patients with thyroid nodules were selected for MIVAT from April 2005 to February 2007. There were 72 females and 23 males with a mean age of 40 years (range 13−65 years). The selection criteria were thyroid nodules smaller than 4 cm without history of thyroiditis, hyperthyroidism, and previous neck surgery or irradiation. Under general anesthesia, a 2 cm horizontal cervical incision was placed upon the sternal notch. Platysma was then slitted without disjuncted skin flap. The cervical linea alba was divided longitudinally, the plane of the thyroid fascia was entered. Special retractors maintain the operative space without insufflation. Under endoscopic monitor, thyroidectomy is performed using conventional and endoscopic instruments (esp. harmonic scalpel). Without drainage, wound was closed by glue or with subcutaneous absorbable suture.
Results: Seventy lobectomy and 25 near total thyroidectomy were completed. Mean operation time of lobectomy was 41.2 min (range 30–120); for near total thyroidectomy, 52.3 min (range 40–150). Seven of eight patients with low-risk papillary carcinoma underwent endoscopic central compartment lymphadenectomy except initial 1 patient converted to open lymphadenectomy. Operative complications were represented by monolateral recurrent nerve palsy in one case, which was cured by RLN repair. There were no cases of hypocalcemia or wound bleeding-sepsis. Average hospital stay was 2 days shorter than traditional open thyroidectomy. The cosmetic result was satisfactory.
Conclusions: MIVAT can be considered a safe operation with better cosmesis.

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Subacute central nervus system morbidity after proton therapy and carbon ion therapy against head and neck cancers and skull base tumors: impact of sequential evaluation by MR imaging

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Purpose/Objective(s): Particle therapy including proton therapy and carbon ion therapy can provide excellent dose distribution because of its physical characteristics. The particle therapy could provide a great advantage to increase tumor doses without increasing normal tissue toxicities of surrounding organs like parotid gland or pharynx. However, especially in the treatment of skull base tumors, certain parts of central nervous system (CNS) such as temporal lobe, brain stem, and cerebrum may not be excluded entirely from irradiated volumes. However, as for subacute or late morbidity of CNS after the particle therapy, there are no reports investigating evaluating sequential evaluation by magnetic resonance imagings (MRI). In this study, we retrospectively reviewed our experience of both the proton therapy and the carbon ion therapy in the Hyogo Ion Beam Medical Center.