Poster Discussion Presentations (Sun, 25 Sep, 14:30–15:30)

Head and Neck Cancer/Radiotherapy

8508 POSTER DISCUSSION

Outcome of Radiotherapy Alone for Locoregionally Advanced Head and Neck Cancer Patients Unfit for Chemotherapy

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Background: Concurrent chemoradiotherapy is the current standard for locoregionally advanced (stage III & IV) mucosal head & neck cancer (LA-HNC). However, many patients are unsuitable for chemotherapy (CX). We report our experience in managing this vulnerable population.
Methods and Materials: We identified LA-HNC cases treated with radiotherapy (RT) alone from 2003–2009 from our prospective database. The use of RT alone according to personal choice or clinical trial protocol was excluded. CX omission was due to either compromised tolerance (poor performance status or older than 70 years of age) or medical contraindications (e.g. hepatic, renal, hearing impairment). Overall survival (OS), local (LC), regional (RC), distant control (DC), late toxicity (RTOG$\geqslant$3) were estimated. Univariate and multivariate analysis identified OS predictors.
Results: A total of 425/1356 (31%) LA-HNC cases were unfit for CX (III 153; IV: 272) due to compromised tolerance (327, 77%) or medical contraindications (98, 23%). Tumours were 177 oropharynx (OPC), 123 larynx, 38 hypopharynx, 38 oral cavity, 11 nasal cavity, 10 nasopharynx, and 28 unknown primaries. RT regimens included conventional RT (cRT) [70 Gy in 35 fractions in 7 weeks (70 Gy/35f/7w)] in 75, moderate accelerated RT (m-aRT) (60 Gy/25f/5w, 66 Gy/30f/6w, or 70 Gy/35f/6w) in 196, very accelerated RT (v-aRT) (64 Gy/40f/4w/twice daily) in 154 cases. Anti-EGFR agents were not used due to unavailability in our jurisdiction during the study period. Only 8 (2%) cases did not complete RT and 111 (26%) had unplanned RT breaks. Median follow-up was 3.8 years. 3-year OS, LC, RC, DC, and late toxicity were 46%, 68%, 83%, 79%, and 25% respectively. V-aRT patients (n = 154) had better OS (52 vs. 36%, p = 0.02), marginally better LC (68 vs. 57%, p = 0.08), RC (88 vs. 79%, p = 0.06), and similar DC (79 vs. 82%, p = 0.64) compared to cRT (n = 75). Smokers [>10 pack-years (PY)] (n = 333) had worse OS (43 vs. 58%, p = 0.02) compared to minimal smokers ($\leqslant$10 PY) (n = 92). Younger age (p = 0.03), minimal smoking (p = 0.02), v-aRT (p = 0.02) were OS predictors in univariate but only the RT regimen (v-aRT vs. cRT, Hazard Ratio (HR) 0.57; m-aRT vs. cRT, HR 0.62, both p < 0.01] and smoking ($\leqslant$10 vs. >10 PY, HR 0.50, p < 0.01) remained significant in multivariate analysis.
Conclusions: A substantial proportion (31%) of LA-HNC cases are unfit for CX mainly due to compromised tolerance in this contemporary series from a large single institution. The outcomes of these vulnerable patients are dissatisfying. Accelerated RT may benefit OS, LC and RC. RT regimen and smoking PY are strongly predictive for OS. Further studies are warranted in discovering optimal treatment strategies for this burgeoning population.

8509 POSTER DISCUSSION

Comorbidity in Radiotherapy-treated Head and Neck Cancer – the Impact of Individual Comorbidities on Survival

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Background: In several studies of cancer prognosis the presence of comorbidity affects survival. A number of indices have been developed to classify comorbidity, e.g. Charlson Comorbidity Index (CCI). Patients with HNSCC are older and often smoke and/or abuse alcohol and their pattern of comorbidities may be different from other patients. The purpose of this study was therefore to 1) describe the prevalence and type of comorbidity in a large cohort of Danish HNSCC patients and 2) to determine the prognostic impact of individual comorbid conditions from the CCI in HNSCC patients.
Materials and Methods: The DAHANCA database contains information on all HNSCC-patients in Denmark and this study included all patients with HNSCC from 1992 to 2007 treated with RT, a total number of 12.434 patients. Data on comorbidity was obtained from the National Patient Registry which contains discharge diagnoses from all hospital admissions and outpatient visits and these data were adapted to the CCI. To determine the prognostic impact of individual comorbidities we did a series of cross-tabulations and χ^2 analyses. The conditions affecting survival were analysed in a multivariate model controlling for other significant comorbidities to determine which condition and to what extent survival was affected.
Results: Median age was 62 years and 73% were males. 37% had pharyngeal carcinoma, 33% laryngeal carcinoma and 30% carcinoma of the oral cavity. 37% of patients had a CCI score of 2+. The prevalence of individual comorbidities were: other controlled cancers (12%), cardiovascular diseases (CVD, 10%), chronic pulmonary diseases (CPD, 9%), liver-disease (7%), diabetes (7%), peptic ulcer (8%), connective tissue disease (CTD, 7%), AMI (5%), and perifer vascular disease (PVS, 6%). Dementia, hemiplegia, leukaemia, lymphomas and AIDS had a prevalence of less than 1% and were excluded from further analyses. The following conditions were significantly associated with 5-year overall survival: PVS, CPD, liver-disease, peptic ulcer, and other controlled cancers whereas diabetes and CTD were non-significant. In a Cox proportionate multivariate analysis adjusted for site, age, sex and stage only peptic ulcer (HR = 1.12 [95% C.I.:1.02–1.24]), liver disease (1.39 [1.24–1.57]) and other controlled cancers (1.09 [1.05–1.13]) were independently associated with risk of death.
Conclusions: We found that only three factors in CCI were prognostic for survival in RT-treated HNSCC. The contribution of comorbidities found within CCI is likely to have changed since development in 1984 and with advances in the effectiveness of treatment there is a need for a revision of CCI when used among HNSCC-patients.

8510 POSTER DISCUSSION

Screening Examination for Superficial Head and Neck Cancer in Patients Who Underwent Endoscopic Resection for Squamous Cell Carcinoma of the Esophagus – a Recent Outcome

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Background: It is now well known that patients with squamous cell carcinoma (SCC) of the esophagus often have synchronous or metachronous head and neck cancer. We previously reported that 5 (5%) of 99 patients who underwent endoscopic resection (ER) for SCC of the esophagus were subsequently found to have head and neck cancer with a median follow-up period of 45 months (Endoscopy 2003; 35: 322–326). Recent developments in endoscopic diagnosis may raise the prevalence of patients with esophageal SCC who were subsequently found to have head and neck cancer after treatment. In this study, we retrospectively evaluated the recent outcome of screening examination for head and neck cancer in patients who underwent ER for esophageal SCC.
Patients: During the period between April 2002 and March 2009, 173 patients with esophageal SCC underwent ER at Hokkaido University Hospital. Thirty patients who had synchronous or prior head and neck cancer were excluded from the screening examination. The remaining 143 patients were enrolled for retrospective evaluation. After ER, we performed follow-up endoscopy at 3 months, 6 months, and 1 year. The pharynx and larynx were also carefully observed by endoscopic examination. Subsequently, follow-up endoscopy was performed annually. Physical examination and laryngoscopy were performed by an experienced otolaryngologist annually.
Results: Among the 143 patients, 14 (10%) were found to have head and neck cancer during the follow-up term (median term of 37 months). All lesions were found by endoscopic examination. Nine had hypopharyngeal cancer, 4 had laryngeal cancer of the epiglottis, and 1 had oropharyngeal cancer. Among them, 2 with laryngeal cancer of the epiglottis underwent radiotherapy, and 12 with tumours that were detected in an early stage underwent ER. Six of the patients who underwent ER had histologically confirmed shallow invasion of the subepithelium and the remaining 6 had carcinoma in situ.
Discussion: We consider that improvement of the detection rate for head and neck cancer is due to development of endoscopic diagnosis. It should be noted that among the 14 patients who were found to have head and neck cancer, four (29%) had tumours at the anterior part of the epiglottis. Because this site has an anatomically narrow space and is difficult to observe carefully in gastrointestinal endoscopy or laryngoscope, two cases were found in a rather advanced stage. These two cases indicate the necessity for careful endoscopic observation at the anterior part of the epiglottis. The other two cases were found in an early stage treatable by ER.
Conclusion: Patients who undergo ER for esophageal SCC have an increased risk of head and neck cancer and should therefore be closely observed for maintenance of good prognosis and quality of life. Endoscopic observation of the pharynx and larynx, including the anterior part of the epiglottis, is very important.