

were mild. By intention-to-treat analysis, 12 pts (40%) showed stable disease and 11 (36%) showed a partial response while 5 (16%) showed treatment failure. For two pts evaluation of efficacy was impossible due to early withdrawn from the study: in one case the pt refused to continue the treatment and in one case we registered an early progression. 1-year survival probability was 68%; median time to progression was 6.1 months. Median survival has not been reached yet.

**Conclusion:** At this dose and schedule the combination of GEM and CDDP appears to be active considering that response rate and survival stand in the range of the most active regimens. Considering toxicity, the schedule appears safe even in this special subset of elderly patients. Complete data will be available for the congress.

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POSTER

#### Adjuvant radiotherapy of the cervical carcinoma in elderly patients

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**Background:** In older cancer patients, comorbidity can have an influence on survival and can enhance the risk of treatment complications. The purpose of the study was to analyze survival and late complications according to performed surgery and postoperative radiotherapy in elderly cervix cancer patients.

**Material and Methods:** We retrospectively reviewed the medical records of 44 cervix cancer patients older than 60 years, treated by postoperative radiotherapy between 1996–1997 year. Radiotherapy for all patients included doses of 36–45 Gy of 6–10 MV external photons to pelvis in 18–22 fractions and concomitant brachytherapy with <sup>192</sup>Ir HDR. Brachytherapy was delivered in 4–5 fractions and 6–7.5 Gy to a dose of 28–35 Gy. The mean age of all patients was 65.5 years (range 60–74). The majority of patients, 39/44, had Stage Ib and the remainder, 5/44, had Stage IIa or IIb. Twenty-nine patients (65.9%) were treated by radical hysterectomy with lymphadenectomy (group I) while 15 (34.1%) by simple hysterectomy (group II).

**Results:** After a median follow-up of 48 months (range 2–60 months) the actuarial overall survival for all patients was 70.43%. Late gastrointestinal (GI) complications were determined in 40.9% and on urinary (UR) tract in 25%. The doses of external beam irradiation were equalized in both groups, while increased brachytherapy dose of 7.5 Gy per fraction was more represented in group I. A larger percent of late GI complications was found in group I vs group II (44.8% vs 33.3%) and also on UR tract (31.03% vs 13.3%).

**Conclusions:** Postoperative radiotherapy in elderly patients is good tolerated and late complications rate is acceptable with higher complications rate in a case of increased brachytherapy dose and after a more radical surgical procedure.

1312

POSTER

#### Radiotherapy for nasopharyngeal carcinoma in elderly: a retrospective review of 22 patients

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**Background:** The incidence of nasopharyngeal carcinoma (NPC) varies extensively with age, ethnic and geographical origin. Radiotherapy (RT) is the standard treatment. The elderly population is increasing in recent years, and the need for cancer care and treatment for the elderly is growing. This retrospective study aimed to evaluate the disease characteristics and outcome of radiotherapy in the elderly with nasopharyngeal carcinoma.

**Materials and Methods:** Between 1998 and 2002, 22 patients aged 75 and older with pathologically confirmed nasopharyngeal carcinoma were treated with radiotherapy in Taipei Veterans General Hospital. The median age was 77 years (range: 75–87). All patients were male. Clinical stage (UICC 1997) was stage I in 1, II in 4, III in 8, and IV in 9 (IVC in 4), respectively. Eighteen patients (82%) had nodal metastasis. Fourteen patients (64%) had non-keratinizing squamous cell carcinoma. Kaplan-Meier curves were used for evaluation of prognostic factors and were compared using the log-rank test with SPSS 13.0 software. Statistical tests were considered significant at  $p < .05$ .

**Results:** The median follow-up time for all patients was 17.1 months (range, 2.4–60.5 months). Twenty (91%) patients received RT alone and two patients received concurrent chemoradiotherapy. Nineteen (86%) patients received curative RT (range: 68–74 Gy), among which 16 completed RT. Three patients received palliative RT (range: 36–54 Gy) and all completed RT. Seventeen (77%) patients received more than 60 Gy. Four

(5%) patients experienced grade 3–4 acute side effects and one treatment-related mortality. There are 2 patients with grade 3–4 late side effects (one with nasopharyngeal necrosis and one with radiation encephalopathy) and 6 patients with grade 2 Xerostomia. The 1- and 3-year overall survival rates were 59.1% and 36.4%, respectively. The 1- and 3-year disease free survival rates were 61.1% and 27.8%, respectively. Age  $\geq 80$  years ( $p < .001$ ), M1 stage ( $p < 0.001$ ), stage IV ( $p = 0.019$ ), palliative intent RT ( $p = 0.017$ ), and RT dose  $< 60$  Gy ( $p = 0.009$ ) had a poor impact on overall survival.

**Conclusions:** High dose RT can be achieved in the majority of elderly patients with nasopharyngeal carcinoma and is associated with a low complication rate. Very old age, distant metastasis, and RT dose were important prognostic factors.

## Paediatric Oncology

### SIOP Europe special session

(Tue, 25 Sep, 09.00–11.30)

1400

ORAL

#### Late mortality among five-year survivors of cancer in teenagers and young adults in England

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**Background:** We have previously shown that survival to five years after a diagnosis of cancer in teenagers and young adults (TYAs) has greatly improved during recent decades, but little is known about subsequent mortality. We have analysed mortality in the next five years among five-year survivors of cancer in TYAs diagnosed during 1979–1998 in England.

**Materials and Methods:** 19,223 cancer patients aged 13–24 years diagnosed in 1979–1998, who had survived at least five years in England, have been included in the analysis. Cancer diagnosis and vital status for each patient were obtained from national cancer registrations for England. Patients were grouped using a specialized TYA diagnostic classification. Cumulative excess mortality for all causes in the next five years after surviving five years from diagnosis was calculated by taking into account of the sex, age, deprivation index and calendar year specific national mortality rates. Cumulative excess mortality in patients diagnosed during 1990–1998 was compared with a corresponding cohort diagnosed in 1979–1989 using Poisson regression (Dickman et al, 2004), allowing for sex, age at diagnosis and socioeconomic deprivation.

**Results:** Overall, the excess risk of dying of all causes in the next five years after surviving five years from diagnosis during 1979–1989 and 1990–1998 fell from 6.4% to 4.8% ( $p < 0.001$ ). The decrease in cumulative excess mortality was most pronounced in patients with leukemia (14.5% to 7.5%), lymphoma (6.5% to 3.4%), and germ cell tumours (1.8% to 0.7%) (in all groups,  $p < 0.01$ ). There were non-significant reductions for bone tumours (9.4% to 7.9%), melanoma (5.8% to 4.6%), and carcinomas (4.1% to 3.3%). There were non-significant increases for central nervous system (11.6% to 14.9%) and soft tissue sarcomas (9.2% to 10.4%).

**Conclusions:** Overall, the improvements in five year survival have been accompanied by a reduction in the risk of death during the subsequent five years. However mortality is high compared with the general population. Causes of late mortality should be investigated.

1401

ORAL

#### The biological basis of ploidy as a genetic marker for the distinct clinical behaviour of neuroblastic tumours

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**Background:** Neuroblastic tumors (NBTs) are biologically very heterogeneous and may display radically different clinical behavior. Ploidy has been correlated with clinically relevant subgroups of NBTs. Favorable NBTs are characterized by near-triploid DNA content whereas unfavorable NBTs are