B, C and HTV infection because of repeated blood transfusions and immunosuppressive chemotherapy. Serological markers for hepatitis B, C and HIV were studied in 102 newly diagnosed pediatric oncology patients at the beginning of therapy between July 1993–December 1994. The age ranged between 7 months and 17 years with a mean of 10 years. 24 patients had Hodgkin's disease, 15 had Ewing's sarcoma, 11 had non-Hodgkin's lymphoma, 10 had osteosarcoma, 8 had Wilms' tumor, 7 had rhabdomyosarcoma, 6 had neuroblastoma, 4 had soft tissue sarcoma, 3 had germ cell tumour, 3 had primitive neuroectodermal tumour, 3 had brain tumour, 2 had hepatoblastoma, 2 had nasopharynx carcinoma, 1 had Langerhans cell histiocytosis, 1 had optic glioma, 1 had tyroid carcinoma and 1 had unclassified tumour. Four patients (4%) had contact with HBV, 15 (14%) developed immunity against HBV and had anti HBs antibodies. One patient had a previous infection with positive anti HBc. Hepatitis C virus (HCV) antibodies were positive in only 1 patient (0.9%). HIV serology was negative in all patients. These results show high prevalence of HBV infection in pediatric oncology patients. In HBV endemic countries, strict HBV screening of blood donors, usage of disposable equipment and vaccination of patients is recommended.

534 POSTER

INTERNATIONAL REGISTER OF CURRENT PROTOCOLS IN CHILDHOOD ACUTE LYMPHOBLASTIC LEUKAEMIA (A.L.L.)

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Many clinical trial groups around the world are performing randomised studies to advance the treatment of childhood acute lymphoblastic leukaemia. Clinicians who wish to find out about the protocols in use may have difficulty, as they have to examine many different reference sources and will miss relevant trials. The treatment regimens are often very complex and even when different trials address the same therapeutic questions, each may have a different approach to administering the therapy under study or may have radically different forms of background therapy. In December 1992, representatives from most of the research groups who conduct randomised trials into the treatment of childhood A.L.L. met and recognised that a regularly updated register of current randomised protocols would be of value in identifying the work of each trial group and allowing comparison between their therapeutic strategies. The first edition of this register is now ready and provides a reliable and readily accessible collection of all identified randomised trials in current use for childhood A.L.L. Each protocol is summarised in a simple clear manner, which emphasizes the randomised comparisons under study. Summary tables show which trials are addressing specific questions and allow easy comparison between both their experimental regimens and their background therapies. The register will be updated regularly and the second edition will be available in Autumn 1995.

535 POSTER

CHILDHOOD- AND JUVENILE THYROID CARCINOMAS

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The authors report on the late prognosis and biological properties of thyroid carcinomas in 36 patients, developed before the age of 20. All patients underwent surgical treatment and were followed up from 1962 to 1994. Papillary carcinoma was diagnosed in 30, follicular carcinoma in 4, and medullary carcinoma in 2 patients. In 11 cases cervical lymph node excision or cytologic examination was performed before the operation, that verified the diagnosis. 24 of the 36 patients had T-2 tumors at the time of the operation. Lymph node metastasis was found in 21, lung metastasis was found in only one patient. Total thyroidectomy was performed in 18, subtotal thyroidectomy in 9 and lobectomy with isthmus resection in 9 patients. Thyroiditis accompanying the carcinonoma was diagnosed in 3 patients. Regional lymph node recurrence occurred in 8 cases. One patient was lost only, due to local recurrence. All of the patients were given thyroid hormone replacement. 20 patients became pregnant after the treatment, and 25 infants were born.

536 POSTER

TOTAL THYROIDECTOMY IN THE TREATMENT OF THYROID CARCINOMA IN CHILDHOOD

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The extent of surgical resection for thyroid cancer in children up to the age of 16 years is controversial with a morbidity varying between 15 and 90%.

Between 1974 and 1993 we routinely performed total thyroidectomy in 16 consecutive patients, ten girls and six boys (6–16 years) with a therapeutic selective neck dissection in six patients. All patients were treated with ^{131}J postoperatively. The results and morbidity were evaluated. Papillary carcinoma was present in 10, follicular carcinoma in 2 and medullary lesions were seen in 4 patients. Extrathyroidal extension was observed in 4 of the 12 patients. Nodal metastases were found at level II–IV[1] in 6 patients and at level V in 2. With an average of 11.5 (2–20) years, all patients were followed regularly with serum thyroglobulin (Tg) and ^{131}J total body scanning when indicated. Only one patient has a slight elevation of Tg levels without any evidence of disease at screening. All patients are alive with no demonstrable recurrences.

Only one patient had a long-lasting hypocalcaemia (>1 year). Recurrent nerves at risk were not injured accidentally, but due to tumour invasion 2 of the 32 nerves at risk had to be sacrificed.

These findings indicate that this surgical approach is safe and well tolerated in pediatric patients.

Robbins KTh, *et al.* Standardizing neck dissection terminology. *Arch Otolaryngol Head Neck Surg* 1991; **117**:601.

537 POSTER

GROWTH IMPAIRMENT IN CHILDREN SUBJECTED TO CRANIAL IRRADIATION

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Growth was assessed retrospectively in 11 children (age range 2–14 years) diagnosed having brain tumors who underwent treatment with chemotherapy, surgery and cranial irradiation with a mean total dosage of 50 Gy. In these patients GH was the first hormone to have a decreased production. The average time from the radiotherapy to the significant decrease in growth rate was 17 months (range 6–27) and to the GH deficiency (<10 ng/ml) was 23.6 months (range 14–64).

Hormonal replacement therapy with rh-GH at dose of 0.6 UI/kg/week given by daily induced a significant increase the average height in SD after 6 months of treatment. These results suggest that GH replacement at 18 months after radiotherapy should be considered in the treatment of these patients.

538 POSTER

OPTIMUM CARE FOR THE ORAL MUCOSA IN CHILDREN AND ADOLESCENTS UNDER CHEMOTHERAPY

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Three different programs for protection of the oral mucosa were examined in 30 children and adolescents undergoing cytostatic therapy. The programs consisted of (a) a liquid of 0.1% Hexeditin + a soluble combination of an extract of rhubarb, salicylic acid and ethanol, (b) a liquid of 0.1% chlorhexidine digluconate and sugar-free chewing gum, and (c) a liquid of amino fluoride/tin fluoride and sugarfree chewing gum. All three programs seemed to protect the oral mucosa equally well. The programs also protected the teeth from increased plaque coverage in 69–90% of all examinations. However, there were striking differences in the acceptance of the three programs. Those containing sugarfree chewing gum were preferred by 83% of the examined children, frequently because of the good taste and the easy way of application. A reason for some patients to decline a program was the painful biting taste that liquids sometimes had on irritable or ulcerative districts of the mucosa. Good compliance is important and essential for protecting the oral mucosa of an immunocompromised child. Different forms of oral disinfection work well, but their acceptance depends on their taste and painless application. The combination of a mild disinfective solution and sugar-free chewing gum is recommended.