

patients and families factors that appeared to contribute to a second opinion being sought and the correlation with internet and alternative medicine use.

Methods: 86 parents (43 from Jewish origin, 43 from Arab origin) of children with cancer recently treated in the Hematology Oncology Pediatric Department were interviewed by the social workers of the department. The questionnaire included epidemiologic data, details about the disease, timing of the second opinion consultation, reasons for seeking a second opinion and the risk/benefit of the consultation.

Results: 22 parents out of 86 (25%) had sought a second opinion, with 39.5% of the Jewish families, 11.6% of the Arab families ($p=0.003$), 36% of the working mothers, 18% of the housekeeping mothers ($p=0.058$), 72.7% of the internet user, and a higher academic and socioeconomic level ($p=0.05$). Most of the second opinion were performed at diagnosis after advice from family physician (32%), Rabbi (27%), friends (27%) and family (18%). Most of the parents sought a second opinion because they wanted confirmation about the treatment protocol and the professional level of the hematologist oncologist / surgeon and the institution. A few wanted more information about the child's condition and its treatment. First opinions consultants were usually aware of these communication issues. There was a slight correlation between the worse prognosis of the child's disease and the second opinion consultation. In 6 cases the parents were proposed to stay in the second institution. In 5 cases, the therapeutic approach proposed by the second consultant was different. In most of the cases (86%), mandatory second opinions helped the family confidence in the first physician and decrease confusion and anxiety helping to accept decision making.

Conclusions: The duties of collegiality has to include ethical obligations to colleagues, moral enterprise, recommending the best treatment for the child with a cooperative interaction among colleagues. Seeking an open and trusting communication process between the family and the treating physician may certainly contribute to improve the second opinion process.

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POSTER

Use of high dose fractionated cyclophosphamide and coordinated high dose methotrexate and cytarabine in childhood B cell Non Hodgkin's Lymphoma.

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Non-Hodgkin's Lymphoma (NHL) in children has varied presentation. Disease localized to the abdomen is often of B Cell origin. Every immunophenotyping markers are not available in developing countries. Therapeutic decisions are therefore based on the clinical presentation. In treating B Cell NHL progress has been made by a trend toward the use of intensive short duration therapy.

Objective: To determine the efficacy of high dose fractionated Cyclophosphamide and co-ordinated high dose Methotrexate and Cytarabine a protocol used by Murphy et al.

Methods: During July 1997 to December 2002, 30 children from 3-14 years age group with B cell NHL (boys 25, girls 5) were treated with Murphy's protocol. It consist of fractionated schedule of intravenous (IV) Cyclophosphamide (300mg/m² every 12 hours for six doses) followed immediately by doxorubicin (50 mg/m²) and Vincristine (1.5 mg/m²) with combine intrathecal (IT) Methotrexate and Cytarabine cycle A. Immediately on hematological recovery iv high dose Methotrexate (1000 mg/m² over 24 hours) followed by iv Cytarabine (400 mg/m² over next 48 hours) was administered with leucovorin rescue and repeated IT cycle B. This sequence is repeated four times with the escalating dose of Cytarabine in successive courses up to 3200 mg/m². The entire duration is approximated 24 weeks.

Results: Out of 30 cases 20 were stage III, 2 with stage IV and 8 with stage II by St. Jude staging system. According to site of presentation 8 were having intra abdominal resectable mass, 16 with unresectable abdominal mass, 2 with head & neck mass and 4 other (1 epidural and 3 bone). Total 140 cycles of chemotherapy were given. 42 episodes of grade III and IV Neurotoxicity (30%) were observed following cycle A and 15 episodes (11%) after cycle B. 5 patients (17%) were lost to follow-up during the treatment course and 5 patients (17%) expired due to toxicity and progressive disease. After follow up range of 4 months 72 months 17 patients (57%) are in remission and 3 patients (10%) are on treatment.

Conclusion: Use of short-term intensive chemotherapy is feasible tolerable and effective in childhood B cell NHL in developing countries with good supportive care.

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POSTER

Factors affecting the success or failure of sperm banking in adolescent male cancer patients.

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Aims: Advances in the treatment of childhood cancer have resulted in many patients becoming long term survivors. This has led to an increased focus on the cost of cure. Male infertility is a major long-term effect of chemo- and/or radiotherapy. A wide range of commonly used chemotherapeutic agents are gonadotoxic, including elements of protocols for the treatment of all the common tumours of adolescence. Sperm banking is a widely available method of maintaining post-pubertal male fertility. However the adverse impact of a diagnosis of cancer, and the evolving nature of many of these patients' sexual identities, mean that this facility is not always used. This study was conducted to identify those factors contributing to this failure.

Methods: Patients aged between 12-20 years at diagnosis, diagnosed between 1997-2001 at RMCH or the Christie were identified. Questionnaires were administered to those who had been offered sperm banking.

Results: 45 of 55 questionnaires were completed. The mean age at diagnosis was 17.1 years, and the mean interval between diagnosis and interview was 2.1 years. 67% of patients had been able to successfully bank sperm. Those who had been unsuccessful were younger (mean age 15.3y compared to 17.8y). This group of patients had significantly higher levels of anxiety at diagnosis and significantly greater difficulty in talking about fertility than those who were successful. They also had less understanding of sperm banking at the time of diagnosis.

Conclusion: The majority of adolescent cancer patients are able to bank sperm. However young age, high anxiety, lack of understanding of the process, and a difficulty in discussing fertility are associated with a failure to store semen. The provision of expert information and counselling to such individuals may increase their chances of successful sperm banking.

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POSTER

Imminent ovarian failure in childhood cancer survivors

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Background: Although many female childhood cancer survivors apparently have normal ovarian function, there is increasing concern about the risk of subfertility and early menopause. The aim of this study was to investigate reproductive history and the prevalence of imminent ovarian failure (IOF) in young adult survivors. In the general population IOF is considered extremely rare before the age of 33.

Material and methods: Participants were ≥ 18 yrs, had received chemotherapy with or without irradiation and were ≥ 2 yrs off-treatment. Patients with hypothalamic/hypophyseal irradiation >25 Gy or with severe mental retardation were excluded. Ovarian function was evaluated by assessment of serum follicle stimulating hormone (FSH) and oestradiol (E2). Criteria for IOF were FSH >10.0 U/L or E2 >0.28 nmol/L on day 3 of the menstrual cycle, or FSH >12.4 U/L on day 7 of the pill-free interval in women with oral contraceptives (Van Heusden, 1999). Data on reproductive histories were collected through questionnaires.

Results: Of the 157 eligible patients (age at diagnosis 7.8 ± 5.3 yrs, age at the time of study 27.3 ± 6.0 yrs) 22 refused participation or were lost to follow-up, 12 were pregnant, 12 had primary ovarian failure after pelvic irradiation or were postmenopausal, 5 had depot-contraceptives and one was on hemodialysis. In addition hormonal assessment was incomplete in 12. In the remaining 93 patients (age at diagnosis 7.4 ± 5.3 yrs, age at the time of study 26.7 ± 5.7 yrs) IOF was found in 21 (23%). The prevalence of IOF under 33 years was 14/75 (19%). IOF correlated with age ($p=.03$) and was associated with peri- or postmenarchal treatment ($p=.003$) but not with alkylating agents or abdominal irradiation not involving the ovaries. 91 pregnancies in 55 women ended in 72 healthy babies, 1 stillbirth and 19 miscarriages ($p < 0.01$ vs normal population). The M/F ratio of the offspring was 0.76 ($p=.04$ vs normal population).

Conclusion: IOF appears to be a frequent complication in females treated for childhood cancer. Patients with menarche before or during treatment are more at risk. Once pregnant, there is an increased risk of miscarriages. The M/F ratio of the offspring is decreased.