

chorych (45,6 %) i IIB – 37 chorych (36,6%). Rozpoznanie przedstawiało się następująco: LP – 4 chorych (3,9%), NS I – 53 chorych – (52,8%), NSII – 29 chorych (28,7%) i MC – 15 chorych (14,6%).

**Metoda:** Chemicznie prowadzono typowo wg schematu MOPP/ABV. Podano średnio 5 kursów leczenia (44 chorych – 4 kursy, 2 chorych – 5 kursów, 55 chorych – 6 kursów). Uzupełniając leczono chorych napromienianiem (IF – 66 chorych, „Mantel” – 19 chorych, STNI – 14 chorych, Y – 2 chorych) spożytkując wiązki promieniowania Gamma Co – 60 fotonów X o energiach: 4,9 lub 15 MeV dawką frakcyjną 1,8 – 2,0 Gy/t do dawki całkowitej 36-40 cGy/t.

**Wyniki:** Obserwowane przeżycia całkowite wynoszą od 14-62 miesięcy (średnio 30,3 miesiąca) a przeżycia wolne od choroby od 2 do 51 miesięcy (średnio 20,7 miesiąca). W analizowanej grupie zmarło 2 chorych z powodu progresji ziarnicy, u 10 stwierdzono nawrót w czasie 4-13 miesięcy po leczeniu. Obecnie w trakcie leczenia 2-go rzutu znajduje się 2 chorych a 4 znajduje się obecnie po chemioterapii 2-go rzutu i przeszczepie komórek macierzystych szpiku – pozostają w obserwacji z całkowitą remisją. Średni czas po leczeniu dla całej grupy wynosi 24 miesiące (6-60 miesięcy).

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### **OCENA WYNIKÓW LECZENIA METODĄ SKOJARZONĄ (CHEMIOTERAPIA 6X MOPP Z UZUPEŁNIAJĄCYM NAPROMIENIANIEM) CHORYCH NA ZIARNICĘ ZŁOŚLIWĄ W STOPNIU ZAAWANSOWANIA I-IIIA.**

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W latach 1978-1993, w Klinice Radioterapii Centrum Onkologii w Warszawie, leczono 258 chorych na ziarnicę złośliwą w stopniu zaawansowania klinicznego I-IIIA. 84 chorych (40 kobiet i 44 mężczyzn) zakwalifikowano do leczenia skojarzonego, chemicznego 6 kursami wg programu MOPP z uzupełniającym napromienianiem. Średni wiek chorych wynosił 31 lat, przeważali chorzy: w wieku poniżej 20 roku życia (32%) – z typem histologicznym ziarnicy NS I (49%), w II stopniu zaawansowania klinicznego (IIB – 46%, IIA – 33 %).

Zastosowano uzupełniające napromienianie na pola: wydzielone u 48, płaszczyzne górne – 26, płaszczyzne dolne – 2, STNI – 6, TNI – 2 chorych.

Wstępnie określone odsetki prawdopodobieństwa 5 letniego przeżycia całkowitego i wolnego od nawrotu choroby wynosiły odpowiednio: 86 i 81 %. Obserwowany średni czas przeżycia całkowitego wyniósł 76,4 miesiąca (20-116 miesięcy) natomiast przeżycia wolnego od choroby – 64,8 miesiąca (6-115 miesięcy). Przedstawione będą szczegółowo wyniki i powikłania stosowanego leczenia.

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### **TOWARDS A NEW LEGAL FRAMEWORK FOR RADIOTHERAPY IN THE EU MEMBER STATES: IS THERE A SCOPE FOR HARMONISATION? CAN ESTRO CONTRIBUTE?**

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On 30 June 1997 the official journal of the European Communities published the “Council Directive 97/43/Euratom on health protection of individuals against the dangers of ionising radiation in relation to medical exposure and repealing Directive 84/466/Euratom”. Since radiation protection issues are generally not the concern and responsibility of the clinical radiotherapy community, this directive escaped attention until ESTRO was invited to contribute to a conference scheduled from 28 to 30 April

of this year in Luxembourg, on the transposition of the directive into national law, a requirement the member states have to comply with before 13 May 2000.

A quick analysis of the text revealed that, in the context of this directive, the term radiation protection needed to be interpreted in the broadest possible sense: not only the physical conditions preventing occupational hazards and environmental contamination, but the protection of the patient against undue exposure and, as far as radiotherapy is concerned: the delivery of the appropriate dose to the patient. The directive touches upon format education and training requirements, accreditation of individuals and departments, minimal infrastructural requirements, staffing, recommendations for continued medical education and the implementation of quality assurance measures.

Is the European Radiation Oncology ready for this? Did we do our homework?

Whereas some other medical associations were pressing for European examinations and diplomas ESTRO has chosen for bottom-up approach by patiently and carefully working at a grassroots level on a convergence of European standards through its quality assurance, education, exchange and mobility programmes. Besides, the newly created European Board of Radiotherapy in which the scientific community (ESTRO) and the professional bodies (UEMS) are represented on a parity basis, started tackling the issues the profession needs to face up to in order to provide a solid basis for the guaranteed freedom of movement of its members within the European space: the harmonisation of basic and continued education, guidelines for the length and content of the practical training in radiotherapy (logbook system), and minimum standards for the accreditation of teaching departments. A European examination and diploma were only envisaged to come at the end of the road. However, with the European directive in mind these long term objectives have now gained momentum and. If ESTRO is to play a role in building a European consensus around the legal framework which will govern the future functioning of Radiation Oncology in Europe, it will have to come up quickly with solid data and creative and thorough discussion documents for entering the debate at the national level.

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### TOTAL BODY IRRADIATION

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#### Introduction

The potential of systemic irradiation for the treatment of disseminated malignant disease was recognised almost immediately after the discovery of radioactivity by Madame Curie in 1897. By 1905, a German physicist, Frederick Dessauer, had designed an arrangement of x-ray sources, which would give a homogeneous dose of irradiation to the whole body. The treatment of 3 patients with leukaemia was reported by Adalar Eifer in a Hungarian journal in 1907. In 1923, Chaoul & Lange from the University Clinic of Surgery in Munich treated 12 patients with Hodgkin's disease, of whom 8 showed responses which lasted at least 7 months (1).

Special equipment for total body irradiation was installed at the Memorial Hospital, New York, in May 1931 and by June of the next year, Heublein reported results with 185 KV x-rays given at a dose rate of 0,67 to 1,26 cGy per hour to patients at distance of 18-14 feet (5.5-7.5 meters). He concluded that the safe whole body dose was 25% of an erythema dose (7.5 Gy measured in air) and noticed "encouraging improvement" in 3 out of 10 patients, but no pronounced "beneficial clinical manifestations: (2). Nevertheless, this work continued and in 1942, an analysis of 270 patients was presented by Medinger and Craver (3).

Doses were limited to 3 Gy because of haematological toxicity and research soon started to find ways of overcoming this limitation. Thomas et al. (4) reported the use of intravenous infusion of bone marrow to patients receiving radiation and chemotherapy. The discovery of leuco-agglutinating antibodies by Dausset (5) stimulated much research, which led to the recognition of leukocyte histocompatibility antigens. An understanding of these was essential for the initial development of safe bone marrow transplantation (BMT), which removed the dose limiting toxicity of total body irradiation (TBI) and permitted the use of much higher doses. Increasing experience has led to better ways of preventing graft versus host disease (GvHD) and enabled rescue after high dose therapy to be extended to the majority who do not have compatible sibling. (6)