trials have been reported after 1994. When we compared the periods 1987–1991 and 1992–1996, we have observed an increase in the number of reports (19 vs 45), a trend for more aggressive treatments (50% vs 85%), an increase in the number of chemotherapy regimens studied (16 vs 32), and an 1 increase in the number of patients enrolled in clinical trials (872 vs 4462), but the median number of patients per treatment arm has remained small (31 vs 39). The median age of patients (74 yrs) and other clinical characteristics have not changed. Prognostic factors, according to the IPI have been reported completely in only 25% of the reports, and only 5% give details of concomitant diseases. Response rate was reported in 92%, but survival in 40%. Dose-intensity or delivery of cycles are shown only in 30%. Toxicities have been reported insufficiently, especially cardiac toxicity (20%) and mucositis (25%). Ten studies have evaluated the prophylactic use of cytokines, but none of them was randomized.

Conclusions: Most reports concerning NHL in the elderly are non-randomized phase It studies that use very diverse chemotherapy regimens and evaluate a small number of cases. Most investigations show response rates, but only a few show overall survival. There is a very low incidence of complete reporting of prognostic factors, concurrent diseases, or treatment toxicity. There is a marked need to perform controlled randomized trials in elderly patients with NHL that evaluate an adequate number of patients, in order to determine 1) treatment selection by prognostic factors, 2) the optimal treatment regimen(s), and 3) the need for the use of cytokines.

1206 POSTER

Epidemiology of non-Hodgkin's lymphoma in Occidental Canary Islands

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Purpose: The present study review the patients's characteristics with Non-Hodgkin's Lymphoma (NHL) in an specific geographic area, Occidental Canary Islands (Spain), along 15 years.

Methods: From 1980 to 1994 we reviewed the cases of NHL collected from the two reference hospitals of this area, formed by four islands.

Results: We analized 525 patients. Mean age was 59 years (range 15 to 88). 283 males (54%) and 242 females (46%). Stage I 110 p (21%), stage II 88 (17%), stage III 88 (17%) and stage IV 218 (42%). Histology according to Working Formulation (WF) was: low grade 154 p (29%), grade intermediate 200 (38%), high grade 120 (23%), and 56 (11%) could not be classified. Average annual incidence per 100.000 in sequential time periods by age and gender was:

		All	15-34	35-54	55-74	<74
1981-84	All	5.5	1.2	4.5	15.4	12.3
	Male	6.8	1.7	4.7	21.4	15.6
	Female	4.3	0.6	4.3	10.4	10.6
1985–89	Ali	7.3	1.1	48	23.5	19.4
	Mal e	8.4	1.0	5.5	26.9	34.8
	Female	63	1.2	4.1	19.4	9.7
1990-94	All	8.0	1.6	6.1	20.2	24.4
	Male	8.0	1.4	63	22.2	28.3
	Female	80	18	5.9	18.4	21.9

17 years overall survival was 30%, median 5 years. Median survival by low grade, grade intermediate and high grade was 8, 5 and 1.5 years. 14 years overall survival was 34%, 30% and 20% respectively.

Conclusion: The NHL incidence in this geographic area is increasing. The frequency is higher in male older than 54 years.

1207 POSTER

Results of radiation therapy and combined radio-chemotherapy in the treatment of the CB-CC non-Hodgkin's lymphoma

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Purpose: To evaluate the results of treatment of centrocytic-centroblastic Non-Hodgkin's lymphomas with special respect to recurrent disease and site of recurrence.

Methods: From 1978 to 1993 83 patients were treated with radiotherapy. 37 patients with localized disease were only Irradiated, 46 patients with progressive disease underwent combined radio-chemotherapy. Standard dose applied was 26 Gy. In 27 cases an involved-field technique, in 56 cases an extended-field technique was used.

Results: After treatment 53 of 83 patients were in complete remission. 44 patients (53%) developed recurrent or progressive disease seven to 95 months after radiotherapy. 16 recurrences (36%) occurred within the primary target volume, 28 (64%) outside. The rate of recurrence was lower and the latency to recurrence prolonged after extended-field irradiation and chemotherapy. The overall five-year-survival rate was 66%, the tumor-free survival rate however only 25%.

Conclusions: The five-year-survival rate is increased after combined radio-chemotherapy and extended-field-tradiation. Extended-field-techniques are lowering the rate of local recurrences. According to the literature the dose has to be elevated to 36 Gy in order to achieve further improvements.

1208 POSTER

Splenectomy in patients with non-Hodgkin's lymphoma

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Purpose: To evaluate the role of splenectomy in patients with non-Hodgkin's lymphoma (NHL) for diagnostic or therapeutic reasons.

Methods: Among 403 patients with NHL diagnosed and treated in our Unit during the last 17 years, splenectomy was performed in 24 (6%) patients. Group A: In 16 cases splenectomy was performed for diagnostic reasons. Group B: 3 patients were splenectomized for autoimmune hemolytic anemia (AlHA). Group C: 5 patients were splenectomized because of hypersplenism. There were 12 men and 12 women with a median age of 54 years (26 to 76 years). 17 patients were in advanced stages (IIII–IV). Histologically 14 patients had intermediate or high grade, while 10 had low grade NHL.

Results: In all patients of group A spleen was infiltrated by NHL, with a median weight of 1500 g, (range 700–2200 g). Liver and abdominal lymph nodes were infiltrated in 8/14 (57%) and 12/16 (70%) patients respectively. All patients of group B were classified in stage IV. In two of them the spleen was massively enlarged and infiltrated by NHL. In all patients of this group AIHA resolved after splenectomy, Hypersplenism was resolved in 4 patients after splenectomy, while the fifth patient died postoperatively. Surgical complications were observed in 5 (20%) patients, while 7 serious infections occurred in 6 patients, and one was lethal.

Conclusions: 1) Splenectomy is useful for diagnosis in some patients with NHL and splenomegaly. 2) in patients with NHL and AlHA unresponsive to other manipulations, splenectomy is very effective. 3) Splenectomy should be considered in all patients with NHL associated with hypersplenism. 4) Infections are common in splenectomized patients, and should be treated promptly and vigorously.

1209 POSTER

Primary extranodal non Hodgkin's lymphoma of the head and neck (HN-NHL)

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Purpose: HN-NHL accounts 10–20% of all cases of NHL. Despite their frequency natural history and biological behaviour of these lymphomas is poorly understood. In this study we analysed our cases of HN-NHL diagnosed and treated in our Units during the last 17 years.

Methods-Results: Clinical and histological data from 114 patients with HN-NHL, were reviewed. There were 63 males and 51 females with a median age 56 years. The distribution among different anatomical sites was: tonsils 55 cases (48.2%), pharynx 18 (15.8%), mandible and gums 8 (7%), hard palate 7 (6.1%), nasal cavity 6 (5.3%), parotis 6 (5.3%), thyroid 5 (4.4%), larynx 2 (1.8%), miscellaneous 7 (6%). The patients were treated with radiotherapy alone (15 cases), combined chemotherapy (51) and combined modality (45). The disease was mainly localised (Stage I: 50.8%, Stage I1: 34.4%). According to the WF histological classification 73 cases (64.1%) were intermediate, 28 (24.5%) high and 13 (11.4%) low grade. Complete remission was achieved in 97 (87.4%) patients. Patients were separated in two groups: Tonsillar NHL (55 cases) and NHL of all other sites of the HN (non-Tonsillar NHL, 59 cases). The patients with Tonsillar NHL did not differ significantly from the non-Tonsillar NHL in respect of the sex, age, stage, histological subtypes and treatment response. However the two groups differed in 3 respects: disease free period (DFP), overall