relapses may be related to "under-staging" because lap-staged pts have superior FFR.

772 ORAL

MULTICENTRE RETROSPECTIVE REVIEW OF PRIMARY CUTANEOUS LYMPHOMA EXCLUDING MYCOSIS FUNGOIDES

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Seventy patients from five centres were identified as having primary cutaneous lymphoma (excluding mycosis fungoides and Sézary syndrome). All histology was reviewed and graded according to the Working Formulation (WF) or updated Kiel classification. Full staging was performed to exclude extracutaneous disease at presentation. The median age was 58 (91–25); male:female ratio 1.7:1; 46 patients presented with solitary lesions (9 with satellite lesions), in 10 patients the distribution was generalised. There were 11 low grade lymphomas (WF A-C)—9 B-cell, 2 T-cell and 59 high grade tumours (WF E-H, LCA,)—33 B-cell, 10 T-cell, 16 immunohistochemistries were non-evaluable. The complete response (CR) rate to first treatment was 80% (56/70) and the CR rate for solitary lesions treated with radiotherapy was 92% (23/25). The lymphoma specific progression free survival was 75% at 1 year, 51% at 5 years with a median of 107 months. Median follow up was 47 months. Twenty-five patients (36%) had at least one cutaneous relapse and 8 (11%) developed an extracutaneous relapse. The risk factors for relapse were >5 lesions ($P < 0.025$) and in solitary lesions the presence of satellites ($P < 0.005$). Overall survival at 5 years was 79% and lymphoma specific survival was 84%: 3 patients died of unrelated causes in remission, 4 died with skin lymphoma but no extracutaneous disease, 6 died from disseminated lymphoma. All patients dying from lymphoma had high grade histology. Prognostic factors for poor disease specific survival were age > 60 ($P < 0.005$) and >5 lesions ($P < 0.005$). Conversely patients with solitary lesions had a better survival ($P < 0.005$). In conclusion primary cutaneous lymphoma has a high survival rate despite frequent cutaneous relapses.

773 ORAL

TOTAL THERAPY OF ACUTE MYELOID LEUKAEMIA

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Our *total therapy* programme for AML comprises chemotherapy followed by BMT in CR1. From 4/90 to 12/94, 54 pts (13–53 y, med 33.5) received BF12 induction: high-dose ARA-C and VP-16 with idarubicin or mitoxantrone followed by two consolidation cycles. 42 pts attained CR (78%). 32 underwent BMT in CR1; one is awaiting BMT. Of the nine not transplanted in CR1 (early relapse, n = 7; refusal, n = 1; death in CR, n = 1), one was transplanted in rel1 and five in CR2.

Subgroup	No.	Cont. CR	Relapse	Toxic deaths	Total deaths	Total alive
Whole group	54				25	29 (54%)
Overall CR	42	23	12	7	13	29 (69%)
ABMT in CR1	19	14	3	2	5	14 (71%)
Allo in CR1	12	7	1	4	5	7 (58%)
Twin in CR1	1	1	-	-	-	1
No BMT in CR1	10	1	8	1	3	7 (70%)

With 54% survival at 3–59 months (median 31) after diagnosis, we believe that this *total therapy* programme represents state-of-the-art management of AML.

774 ORAL

ALTERNATING VCMP/VBAP AT STANDARD DOSES (SD) VS. VCMP/VBAP AT INTERMEDIATE DOSES (ID) AS INITIAL TREATMENT OF MULTIPLE MYELOMA (MM)

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In a previous PETHEMA study we have shown that VCMP/VBAP increases response rate in MM when compared with melphalan/prednisone. The aim of the present study was to ascertain whether treatment with VCMP/VBAP (ID) with a moderate increase in the cyclophosphamide (C) and adriamycin (A) doses could be superior to VCMP/VBAP at SD.

From Jan 1, 1990 through May 31, 1994, 449 pts with symptomatic MM entered the study. All patients were randomized to receive: (A) alternating courses of VCMP (vincristine 1 mg iv on day 1, cyclophosphamide 500 mg/m^2 iv on day 1, melphalan 9 mg/m^2 p.o. on days 1–4 and prednisone 60 mg/m^2 on days 1–4) and VBAP (vincristine 1 mg iv; BCNU and adriamycin iv, 30 mg/m^2 each on day 1; and prednisone 60 mg/m^2 on days 1–4, or (B) the same VCMP/VBAP increasing the cyclo from 500 to 1200 mg/m^2 and adria from 30 to 50 mg/m^2. The objective response rate among the already evaluable pts for response was 40.2% with SD vs 50.5% with ID ($P = 0.068$) with no impact on survival (31 vs 30 mos).

In summary, these results show a trend towards a higher response rate to VCMP/VBAP at higher doses of cyclo and adria, with no significant impact on survival.

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775 ORAL

EFFECT OF CLODRONATE ON PROGRESSION OF SKELETAL DISEASE IN MULTIPLE MYELOMATOSIS

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We have examined the effect of clodronate on skeletal morbidity in myeloma in a double-blind placebo controlled trial. 615 patients were randomised at diagnosis to receive either clodronate 1600 mg daily by mouth (n = 304) or an identical placebo (n = 305) in addition to chemotherapy.

There was no difference in the initial symptomatic response between the clodronate and placebo-treated patients. In contrast, at relapse, the proportion of patients with poor performance status was significantly lower in those receiving clodronate (RR 0.52, 95CI 0.32–0.83). Fewer patients experienced a marked increase in back pain (RR 0.48, 95CI 0.13–0.89) and a similar trend was observed for rib pain (RR 0.34, 95CI 0.10–1.21). Fewer patients experienced new vertebral fractures after the first year in the clodronate wing (RR 0.72, 95CI 0.51–1.01) with fracture rates of 33 and 54 new fractures/100 patient years respectively ($P < 0.003$).

We conclude that long-term oral clodronate modifies the progression of skeletal disease and provides a useful adjunct to clinical management.

776 POSTER

AIDS-RELATED MALIGNANCIES: ANALYSIS OF 168 CASES REGISTERED IN ALSACE

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In 1989, the regional reference center for HIV infection in Strasbourg decided to set up a prospective study of the incidence of all malignancies occurring in HIV-infected individuals followed up at the three major hospitals of the Alsace region.

As of March 15, 1995, 168 HIV-associated malignancies have been recorded in 165 patients through anonymous notification to the reference center.

Sex-ratio is 9.3 (149 men, 16 women) and mean age 35.8 (22–61). Kaposi Sarcoma is the most frequent neoplasia (100 cases, 59%) occurring mainly in male (96 cases) among which 83 (86%) are homo- or bisexuals. 65% of Kaposi's sarcoma are the first AIDS-defining event. Non-Hodgkin lymphomas (39) are essentially of high grade of malignancy and of B type and are the first AIDS-defining event in 19 cases (49%).

Until now, invasive cervical cancer is not present in this series but we found *in situ* carcinoma in 9 women. Others malignancies include squamous cell carcinomas (6), various carcinomas (8), lymphoproliferative disorders (5) and seminoma (1).

Distribution of cases are presented according to histology and localization of tumor, age, sex, way of contamination, CDC group and year of diagnosis.

777 POSTER

PREVENTION OF INFECTION ON UPPER RESPIRATORY TRACT WITH IMMUNOGLOBULIN A NEBULIZATION THERAPY IN PATIENTS WITH IMMUNOPROLIFERATIVE MALIGNANCIES

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Infection of the upper respiratory tract (URT) is a major cause of morbidity and mortality in patients (pts) with immunoproliferative malignancies (IPM). Nebulizations with IgA were tested to evaluate its efficacy to prevent infections of the URT in pts with IPM. 27 pts (age 69 ys, Chronic Lymphocytic Leukemia 16, Myeloma 7, Lymphoma, Waldenstrom, Lymphoepitelioid Tymoma, 1 pt each) were randomized to receive IgA virus-inactivated (IGABULIN, IMMUNO) or placebo nebulizations every 12 hours during 3 months (either fall or winter). One pt was excluded. Four (2 URT) infections. In 13 IgA pts and 12 (7 URT) in 13 placebo pts (30% vs 92%, P = NS) were registered. A 18% and 83% infection occurred in the IgA and placebo arms in pts with at least one infection during the 3 months prior to the onset of study ($P < 0.036$). Three IgA and 8 placebo pts required antibiotics (P = NS). Performance status (PS) was >2 in 1 IgA and in 6 placebo pts (P = NS). PS > 2 was observed in 4/6 placebo pts and previous infection, and in 0/11 IgA pts ($P < 0.01$). The first infection occurred on days 21 and 12 from the onset of study for the IgA and placebo arms ($P < 0.028$). According to this study, IgA nebulization therapy could prevent URT infection (specially in pts with previous infections episodes) and could also delay the onset of URT infection in pts with immunoproliferative malignancies.

778 POSTER

PATIENTS WITH MULTIPLE MYELOMA (MM) REQUIRING LONG-TERM HEMODIALYSIS (HD): PRESENTING FEATURES, RESPONSE TO THERAPY AND SURVIVAL IN A SERIES OF 20 PATIENTS

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About 5% of patients with MM develop acute renal failure requiring dialysis. From Jan 1982 through Dec 1993, 20 patients (11 M, 9 F, median age 62 yr) with MM required long-term HD (>2 months) at our institution. The M-component type was IgG in 8 cases (3κ, 5λ), IgA in 8 cases (7κ, 1λ), free light chain in 3 cases (2κ, 1λ) and Ig-Mκ in one case. Among 17 patients evaluable for response to chemotherapy, the objective response rate was 47% (8/17). In only two patients could be discontinued. The total number of hospital admissions was 42. Mean hospitalization days per year was 19.3 ± 13.9 (SD). The subgroup of patients who survived less than one year spent a mean of 38.3 ± 21.4 (SD) days in hospital, while in the subgroup with a survival longer than one year mean hospitalization days was 9.6 ± 5.6 (SD) ($P < 0.001$). The median survival was 21.4 months and six patients survived for more than 3 years.

In summary, patients with MM and severe renal failure who survive the first two months on dialysis have an objective response rate to chemotherapy of about 50% and a median survival of almost two years, with 30% long-survivors with good quality of life.

779 POSTER

BULKY HODGKIN'S DISEASE (HD): INTERIM RESULTS OF THE GOELAMS RANDOMIZED H90-M PROTOCOL

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From 2/90 to 6/93, 77 adult patients (pts) with bulky HD clinical stages (CS) I–III (nodes >10 cm, mediastinal tumor/thoracic width ratio ≥ 0.45, simultaneous lumbo-aortic and pelvic involvement) and CS IV received a 8-drug CT (cyclophosphamide, CPM; epirubicin, EPR; vincristine, VCR; vinblastin, VBL; VP16; methotrexate, MTX; bleomycin, BLM; methylprednisolone, MP) delivered on 12 weeks (wk) with the same cumulated dose. Y arm (n = 36), 1 course each 4wk (mg/m^2): CPM 650 + EPR 40 D1 + D2, VCR 1.3 D1, VBL 6 D5, VP16 150 D3 + D4, MTX 30 DS, BLM 10 D1 + D5, MP 100 D1–D5; Z arm (n = 41) 1 course each 3 wk: (mg/m^2) D1 + D5, CPM 500 + EPR 30 + VP16 110 + MTX 22.5 + BLM 7.5 + MP 180; D1 VCR 1, D5 VBL 4.5. Y arm required hospitalization while Z arm was delivered on an outpatient basis. CT-responding pts received (sub)total nodal RT (40 Gy). Pts characteristics: M 52, F 25; age ≤ 40 54, >40 23; CS I 2, II 16, III 16, IV 43; A 24, B 53; histology: LP 1, NS 44, MC 20, LD 5, UN 7. CR rate is 78%; numbers of CR after CT, after RT, and relapses are similar (Y arm 24, 30, and 7; Z arm 23, 37, and 9).

780 POSTER

SUBDIAPHRAGMATIC HODGKIN'S DISEASE (HD): ANALYSIS OF 56 CASES

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Introduction: HD limited to sites below the diaphragm is a rare clinical presentation: little information is available especially about long term complications.

Material: We report 56 patients (39 men, 17 women) with a median age of 52 years, treated from 1976 to 1990 in the two Cancer Centers and Haematology Departments of Nancy (39) and Strasbourg (17). Clinical stages are: 12 IA, 2 IB, 14 IIA and 28 IIB. Histologic subtypes were: lymphocyte predominance: 11 (20%), nodular sclerosing: 9 (16%), mixed cellularity: 28 (50%), lymphocyte depletion: 4 (7); not specified: 4 (7%).

Treatment: 21 patients underwent laparotomy with splenectomy (S), 16 received exclusive irradiation (6 after S); 40 received firstly chemotherapy (CT), with a mean of 4 cycles (18 only MOPP, 18 MOPP and ABVD, and 4 other schemes). All these 40 patients also received subsequently a subdiaphragmatic irradiation by 25 MV photons, with doses ranging from 36 to 44 Gy.

Results: 35 patients had complete remission (63%) and one was lost. 20 patients died: 7 of HD (among the 9 with relapse), 7 of second cancer (leukaemia: 2, lymphoma: 2, lung cancer: 3), 3 of intercurrent disease, 2 of unknown cause and one of complications.

14 patients had acute toxicity, especially related CT. Among the long-term complications we noted: 4 gastric ulcers, 1 oesophageal stenosis, 2 bowel occlusions, 2 bowel perforations, 3 arterial ischemic syndromes, 3 severe osteoporosis, 5 extensive zonas.

781 POSTER

INFECTION DURING SEVERE NEUTROPENIA IN 182 PATIENTS WITH ACUTE MYELOID LEUKEMIA (AML)—MORBIDITY AND MORTALITY

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Infections still remain the major cause of morbidity and mortality in neutropenic patients with leukemia. Especially fungal infections are critical during neutopenia. 487 febrile phases were evaluated retrospectively during 377 neutropenic episodes (leukocytes < 0.5×10^9/l) of 182 AML-patients treated in our institution from 1982–1993. We observed 16 neutropenic phases without fever. In 156 episodes (32%) the origin remained unknown (FUO), but 331 (68%) were clinically or microbiologically identified infections mostly gram-positive bacterial (37%), followed by fungal (31%) and gram-negative bacterial infections (21%). Sepsis (220) and pneumonia (86) represented the major type of infections. 70% of pneumonia were caused by fungi. Urinary tract infections (27), tonsillitis (17), oesophagitis (16) and abscesses (13) turned out to be the other main infection sites. 48 patients died during neutropenia. The leading cause of death was fungal sepsis or pneumonia in 73% (29). 38% (11) of lethal fungal infections were discovered at autopsy; in 9 of these 11 patients mixed infections were observed—frequently a combination of fungal and gram-negative infection. To conclude all patients with pneumonia in neutropenia should be treated early with high dosage antimycotic therapy; in addition a mixed infection should be considered.