PATHOLOGY OF THE CENTRAL NERVOUS SYSTEM HIV INFECTION

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Involvement of the CNS is frequent in AIDS. It has been shown that 30–60% of all patients with AIDS have neurological symptoms which represent the principal cause of death and disability in that population. Neuropathological studies have further shown that 80–100% of AIDS patients have pathological abnormalities in the CNS.

Most of these complications occur late in the course of the disease, in full blown AIDS. These lesions are multiple, and relate to various mechanisms which are not all completely understood. Apart from opportunistic infections and lymphomas related to the immunodeficiency syndrome, and changes secondary to other general or visceral complications of the disease, a group of lesions have been identified which are thought to result from infection of the CNS by the HIV. Involvement of the white matter was first emphasized. It includes lesions characteristic of productive HIV-infection of the CNS: *HIV encephalitis* and *HIV leukoencephalopathy* which usually harbour characteristic multinucleated giant cells and in which large amounts of viral antigens or genome may be demonstrated. *Vacuolar myelopathy* is characterized by the presence of numerous vacuolar myelin swellings and macrophages in the spinal cord, predominantly in the dorsolateral spinal tracts. Its exact aetiopathological relationship with HIV infection is unclear. It seems likely that factors other than, or additional to, HIV infection may play a role in its causation. Involvement of the grey matter has been described later. *Diffuse poliodystrophy* characterized by reactive astrocytosis, and microglial activation diffuse to the cerebral grey matter was observed in about half of AIDS cases. Neuronal loss, suspected at histological inspection was confirmed by morphometry. Recent studies suggest that neuronal damage may be due, at least partly, to an apoptotic process and is only indirectly related to the viral infection.

On the other hand, although most HIV carriers remain neurologically unimpaired during the pre-AIDS period, examination of brains of asymptomatic HIV-positive individuals who died accidentally suggests that invasion of the CNS by HIV occurs early in the course of the disease, at the time of primary infection. It induces an immunological process including an inflammatory T-cell reaction with vasculitis and leptomeningitis, and immune activation of brain parenchyma with increased number of microglial cells, upregulation of major histocompatibility complex class II antigens and local production of cytokines. Myelin pallor and gliosis of the white matter are usually found and are likely to be the consequence of opening of the blood brain barrier due to vasculitis; direct damage to oligodendrocytes by cytokines may also interfere. These white matter changes may explain, at least partly, the early cerebral atrophy observed, by MRI in asymptomatic HIV carriers. In contrast, cortical damage seems to be a late event in the course of HIV infection. There is no significant neuronal loss at the early stages of the disease, no accompanying astrocytosis in the cortex, and only exceptional neuronal apoptosis.

HIV INFECTION IN PERSONS WITH HAEMOPHILIA: A LONGITUDINAL STUDY OF PSYCHOLOGICAL IMPACT

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Objectives: to evaluate the emotional impact in persons with haemophilia and HIV infection.

Methods: the study included 118 subjects (66 HIV + ve and 52 HIV-ve) from Haemophilia Centres (H.Cs.) of Bari, Florence, Milan, Naples. The assessment was repeated twice, after 6 months, by standardized self-report tests (SDS, STAI-Y, MMPI) and a Questionnaire on Psychological Impact of AIDS. Statistical analysis was performed by using non parametric Wilcoxon and Man Whitney tests.

Results — Questionnaire on Psychological Impact: HIV-ve subjects were fearful and unhappy more than asymptomatic HIV + ve ($p = 03$). All HIV + ve, whether symptomatic or not, have been concerned about their health and minor infection more than HIV-ve ($p = 004$, $p = 02$), both times. Instead the HIV-ve felt reluctant to having factor replacement in higher percentage compared to HIV + ve in the baseline ($p = 003$, $p = 02$). *STAI-Y, SDS:* no differences in mood and anxiety state were found between the HIV + ve, whether symptomatic or not, and the HIV-ve. *MMPI:* the two groups reported a personality profile within the range of normality.

Conclusion: the main findings in our study were:

1) emotional involvement in the HIV-ve; 2) in contrast with literature, no differences were found between HIV + ve, whether symptomatic or not, and HIV-ve in mood and anxiety state.

S34. New developments in crisis intervention and emergency services

Chairmen: H Katschnig, M Phelan

CRISIS HOMES — AN EMERGENCY ALTERNATIVE TO THE HOSPITAL

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The Mental Health Center of Dane County has long been recognized as a leader in providing safe, clinically appropriate and cost-effective alternatives to psychiatric hospitalisation. The Crisis Home Program uses private homes of local families as a place for clients in crisis to obtain support and supervision for a few days. Include are case-studies, as well as data on costs, length of stay, diagnosis and client satisfaction, concluding that a Crisis Home program is a useful component in any psychiatric emergency service, appreciated by therapists, family members, funding sources, and (most importantly) by the clients themselves.

The presentation concludes with thoughts as to why more such services do not exist, with proposals on how to transcend such challenges.

MOBILE SERVICES: ACUTE HOME-BASED CARE AND COMMUNITY PSYCHIATRY. RESULTS OF A DATA ANALYSIS USING THE SOUTH VERONA PSYCHIATRIC CASE REGISTER

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In emergency situations community care has to offer a quick response to urgent requests for help in the client's own environment and with a minimum use of the hospital. Mobile services may fulfill both these requirements. Community treatment teams usually consisting of a psychiatrist, a social worker and a registered nurse provide crisis intervention and resolution, and ongoing care, while remaining available at all times for future emergencies. These services have been refined, extensively studied and publicised by a number of authors and have become the reference approach to emergency home care. Outcome studies have shown that such crisis intervention and

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home support are at least as effective for the patient as traditional hospital care and follow-up, reduce the burden on the family, and are also more economical.

An analysis of the data of the case register of the South Verona Community Psychiatric Service (CPS) on home visiting during a 10-year period (1982–91) will be discussed in the presentation. South Verona CPS is a comprehensive and integrated community-based mental health service where staff members are divided into three multidisciplinary teams, each responsible for a subsector of the catchment area. They work both in the hospital ward and in the community. While not yet offering a 24-hour a day mobile crisis team, the service provides at-home interventions during working hours and ongoing care as needed. Case register data show that while an increase in out-patient community care and day care was taking place over the years, there was a parallel fall in the use of public and private hospital beds. Results of this study show that home-based care increasingly provided in the 1982–91 period to all South Verona patients was associated with a decreasing use of hospital beds. However, differences across age and sex groups appeared: the increase of home-based care regarded older females, but not younger females and males, and was associated with a decreasing use of hospital beds in female patients (all diagnoses) and in female patients with affective disorders and with other diagnoses, but not in those with schizophrenia and related disorders. In addition, the apparent effect of this approach over the years was a distinct improvement of our psychiatric service in terms of workers' clinical skills and therapeutic effectiveness.

COST BENEFIT STUDY OF DAY CARE — THE EFFECT OF AN ATTACHED COMMUNITY PSYCHIATRIC NURSE

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Previous studies have demonstrated that 30–40% of admissions to a psychiatric in-patient unit with acute illness can be treated in a well-staffed day hospital. In this cost effectiveness study, 179 patients with acute psychiatric illness were randomly allocated to day hospital or in-patient treatment. Nearly half the sample had schizophrenia. The groups were well matched on baseline characteristics and clinical and social outcome were similar at twelve months, except that in-patients improved significantly faster than day patients ($p < 0.05$) and burden on relatives was significantly less in the day hospital group at one year ($p < 0.05$). Direct costs to the hospital were, on average, £2,786 (SE ...) per patient cheaper for day hospital treatment compared to in-patient treatment.

Patient travel costs were significantly greater for day patient care and there was a significantly greater loss of informant's income. When all direct and indirect costs were considered, day hospital treatment still proved to be £1,590 (SE = ..) cheaper. In addition to demonstrating that day hospital treatment is cheaper than in-patient care, this study highlights the very considerable distress experienced by carers of people with acute psychiatric illness. This may amount to actual psychiatric disorder in the carer; it resolves more satisfactorily with day hospital treatment than in-patient treatment. By contrast, acute psychiatric disorder appears to resolve faster in the in-patient unit. These findings only apply to those 40% of patients presenting for admission who can be treated in the day hospital and require further study if we are to define optimal use of day and in-patient treatment for acute illness.

FROM EMERGENCY TO SOCIAL PSYCHIATRIC SERVICE CENTERS; THE AMSTERDAM EXPERIENCE

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Outreaching emergency psychiatry has been the keystone in Dutch mental health to prevent admissions in mental hospitals. There was comprehensiveness of acute service with its strong connection with pre- and aftercare. The expansion of the ambulatory mental health centers (RIAGG's) in the eighties, now serving 3% of the population, resulted in a disconnection of the acute services from continuity of care for chronic patients in the community. The mental hospitals in reaction to the ambulatory expansion have set up acute wards to admit patients as short as possible. This policy was viewed as a 'principle' of community mental health care. The unforeseen result was however an enormous increase of 100% in ten years of the number of admissions. The setting up of social psychiatric service centers with continuity of care, tailored treatment, partial hospitalization and related to sheltered living arrangements and day-activity centers for a catchment area of 100.000 are the new solutions to offer in- and outpatient acute care again related to the principles of continuity. From research it became clear most outreaching services could be better viewed as a repetition of interventions for chronic patients. Continuity of care is now seen as the tool to counter the need for acute care. In Amsterdam 5 Social Psychiatric Service Centers are operating, replacing the old hospitals and offering ambulatory and inpatient care.

TENSIONS AND CHALLENGES IN THE PROVISION OF EMERGENCY MENTAL HEALTH SERVICES

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Inevitable conflicts arise when trying to provide emergency mental health services. As a result patients often do not have a smooth pathway into care, and crisis services receive fierce criticism from service users. Difficulties facing those responsible for the provision of emergency care include: lack of any agreed definition of what constitutes a psychiatric emergency; rising demand as services become more accessible and less stigmatising; economies of scale forcing out of hours services to be centralised and anonymous; limited multidisciplinary working and a lack of senior staff working with people in crisis. Numerous models of emergency care have been demonstrated to be effective in specific settings. To provide effective routine services it is essential that there is close integration between emergency services and other aspects of the local community services, and that services are planned on the basis of the needs of the local population, rather than applying a universal model of care.

S35. A new paradigm: psychiatric disablements

Chairmen: C Pull, T Ustun

DISABILITY IN THE GB SURVEYS OF PSYCHIATRIC MORBIDITY

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Data will be presented from the GB surveys of psychiatric morbidity,

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