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CLINICAL ASPECTS OF THE DEMENTIA: A CLASSIFICATION

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Introduction:

The number of patients suffering from a "dementia syndrome" is constantly increasing. One reason for this development is an increase of men's average life expectancy of today.

An increasing proportion of the population reaches an age of more than 65 years (about 11 % in the U.S.A. and about 14 % in Japan and some Western European countries, Christie, 1987). The population census for the United States in 1980 stated the population as with 232 millions. 11 % (= 25.5 million people) are above the age of 65. 15 % of the latter group (= 3.8 millions) suffer from dementia (Thal, 1988).

The prevalence ratio of Alzheimer's disease in this group of people ranges between 1.9 and 5.8 % (Rocca et al, 1986). This means that in 1980 in the U.S.A. about 1.9 million people have been suffering from Alzheimer's disease (Petrie, 1985, Kokmen, 1984).

Because of the larger number of patients suffering from dementia the illness has gained in importance and on this account serious psychosocial problems arise. Research in this field therefore has gained in value because of this development.

Dementia as such presents many different phenomenological types. Differences in the description of the clinical picture result in a limited utilization of found data. The original differenciation between senile and presenile Dementia is no longer used because of missing pathological and nosological entities. In the last decade a classification into degenerative and vascular dementia has been established. However, this classification cannot be main-

tained because of many diagnostic errors in ante mortem evaluation of Alzheimer patients ranging from 18 % to 49 % (Rocca et al, 1985).

The diagnosis of Alzheimer's disease remains as an "exclusion diagnosis". The final diagnosis still requires a histological examination of brain tissue. On the other hand the diagnosis of vascular dementia as an entity is controversial. Poeck (1988) critisizes mainly the term "multi-infarct dementia" which was introduced by Hachinski et al, 1974, on the grounds of great variability of the clinical picture of this disease. False diagnosis is also caused by the so-called "mixed forms" which amount up to about 30 %! (Tomlinson et al, 1970). Albert started a discussion 1974 about the term "subcortical dementia" describing patients who suffer from progressive supranuclear palsy. Cummings and Benson, 1984 have taken over this discussion but have also found features of subcortical dementia in various other diseases, such as extrapyramidal syndromes (e.g. Parkinson's and Huntington's disease, spino-cerrebellar degenerations, idiopathic basal ganglia calcification and Wilson's disease, hydrocephalus and metabolic/toxic encephalopathies). This classification, too, doesn't seem tenable because the most recent biochemical and neuropathological findings show in most of these cases multilocular lesions. In this connection we also wanted to state that for example hydrocephalus and metabolic/toxic encephalopathies mostly present as organic brain syndromes and therefore are treatable.

The differentiation between reversible and irreversible forms of dementia is used by a large number of investigators. From a clinical point of view this classification is erroneous because "dementia" is an irreversible clinical picture whereby the so-called reversible dementia should be termed as "diffuse organic brain syndrome".

Dementia is defined by the American Psychiatric Association as a "deterioration of intellectual functioning, severe enough to interfere significantly with work or usual social activities or relationships with others".

Lishman (1980) defined the dementia as an "acquired global impairment of intellectual function, an impairment of

memory and personality without disturbance of consciousness as a syndrome or a pathological entity". Cummings (1980) defined dementia as an "acquired persistant impairment of intellectual function which comprises at least three of the following spheres of mental activities language, memory, visuospatial skills, emotion, personality and cognition (abstraction, calculation, judgement etc.)".

Summarizing all the definitions it could be stated that dementia should be defined as an acquired, persistant impairment of cognitive abilities such as, memory, language, reading and writing, visuospatial skills, abstractions, problem solving, conception forming, attention as well as personality changes and a reduction of every-day's living activities.

Historical basis of the terminology:

The above mentioned, really shows that there is a great difficulty in classifying the various types of dementia, mainly when it comes to differentiate the dementia syndrome following a diffuse brain damage or multilocular lesions in differentiation to the clinical pictures with transient disturbances of the brain function, for example due to intoxication or metabolic disorders with symptoms similar to dementia. For this reason we try to discriminate the different forms of organic dementia from the forms of the organic brain syndromes based on the rather clear definition by E.Bleuler (1916) and later by M. Bleuler (1967).

E.Bleuler (1916) defined dementia as the "worst form of an organic brain syndrome (organisches Psychosyndrom) with disturbance of intellectual functions, emotion and personality". The development of this disorder is progressively and shows a poor or no remission at all. Furthermore he differentiated between the diffuse organic brain syndrome (amnestisches organisches Psychosyndrom) and the local organic brain syndrome (lokales organisches Psychosyndrom) within the category "organic dementia" (organische Demenz).

Classification and terminology:

In the following the classification and terminology of

organic dementia (o.d.), the diffuse organic brain syndrome (d.o.b.s.) and the local organic brain syndrome (l.o.b.s.) will be presented.

The organic dementia (o.d., organische Demenz) is defined as a mental disorder resulting in an irreversible diffuse brain damage and appears in two different forms: the progressive and the static one, as the worst form of an organic brain syndrome. The clinical picture consists of a more or less marked disturbance of highest and higher functions which results in a rarification and simplification of all psychic reactions, like memory impairment (mainly short-term memory), disorientation of location and time, disturbance of judgement and apprehension as well as disturbances of control of affection, emotion and instinct, mood flattening and additionally impairment of speach, calculation, writing, reading, constructional abilities, partial apraxia and agnosia. The course of this condition might come to a halt or otherwise may lead into a progressive deterioration. The cause of this condition mainly is a degenerative one. The best known diseases within this group are Alzheimer's and Pick's disease or else may be sequelae of diffuse organic brain damage which finally lead into the organic dementia.

The diffuse organic brain syndrome, (d.o.b.s., diffuses organisches Psychosyndrom) is defined as a mental disorder as a consequence of reversible cerebral illness which etiologically may be inflammatory, vascular, metabolic/toxic, posttraumatic or may be extracerebral diseases with general metabolic disturbances. The symptoms are very similar to those ones of the organic dementia but show mostly less marked intensity. But what differs is the course. It may be reversible with a total remission, partial reversible with a defective state showing the symptoms of organic dementia or may be partial reversible leading into a defective state with a later onset of progression and finally end in the picture of organic dementia.

The local organic brain syndrome (l.o.b.s., lokales organisches Psychosyndrom) is a sequel of cerebral damage, for example after brain injuries, inflammatory diseases as well as vascular disorders and more rarely of metabolic or toxic impairments. The local organic brain syndrome is subdivided according to the neuropsychiatric findings. We can diffe-

rentiate the lesion concerning the frontal lobe and subdivide in a frontobasal syndrome and a frontoconvex syndrome. If mainly the temporal lobe is affected, we subdivide in a temporobasal syndrome and an amnestic syndrome. The course of the local organic brain syndrome may be reversible, showing a complete remission, it can be partially reversible, leading into a defective state or may be partially reversible but only later developing a progressive course which leads into a defective state.

The frontobasal syndrome (frontobasales organisches Psychosyndrom):
This condition firstly has been described by Kretschmer (1949) and occasionally has been termed as an "orbital syndrome". This condition shows an increase of drive, a loss of emotional control, tendency for motoric overactivity, diminuition of cognitive functions and overreaction to fright. In many cases someone may find primitive motor patterns, such as oral automatisms and grasping reflexes. Also vegetative disturbances occur, like an inclination to vascular hypotonia and disturbances of the circadian rhythm. This syndrome etiologically might be linked with a lesion of the frontobasal and/or related structures, mainly caused by traumata.

The frontoconvex syndrome (frontokonvexes organisches Psychosyndrom), (Gerstenbrand, 1967; Schmieder, 1968):
This condition is consistent with the pseudopsychopathic syndrome (Peters, 1969). The clinical picture consists of an increase of drive, which lessens after a short period, euphoria, distractibility, reduced reaction to fright, a decrease of emotional response, hypersexuality, disturbance of social adjustment and primitive oral motoric patterns. In many cases it also shows vegetative dysregulations. In some of the cases temporal seizures may be observed. The etiological causes of these clinical pictures are mainly inflammations or traumas and it is assumed that the lesions are in the temporal lobe and its related structures.

The amnestic brain syndrome (amnestisches organisches Psychosyndrom):
The synonym for this condition is dysmnestic syndrome, created by E.Bleuler (1916). The clinical picture consists of disturbance of the memory, disturbance of intellectual perception, orientation (location and time), of an impair-

ment of thinking and affection. A bilateral lesion of the temporoconvex region is assumed, mainly caused by intoxications with alcohol, poisons, metals etc. and by metabolic as well as vascular disorders.

Conclusion:

We do hope that the use of this terminology renders a better differentiation in evaluating patients with demential syndromes.

Using this terminology a more precise classification of demential syndromes seems to be possible, especially as it is important to discriminate between patients with demential symptoms being treatable and such ones which are up to date not treatable at all.

Key words:
Organic dementia - diffuse and local organic brain syndrome - frontobasal syndrome - frontoconvex syndrome - temporobasal syndrome - amnestic syndrome.

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