

is no characteristic abstinence syndrome, abrupt withdrawal can reveal a masked depression or it may precipitate a Depressive Reaction with a suicidal potential in some cases. Because of the ever increasing frequency of multiple dependence patterns, the physician should make every effort to ascertain the patient's drug history before attempting withdrawal. As indicated, the amphetamine abuser often is taking barbiturates or heroin in combinations or separately and if so, procedures should be instituted to withdraw him from them.

Amphetamine intoxication can precipitate a schizophrenic episode in some, especially latent psychotics. In other persons, an acute and florid paranoid psychosis is produced called amphetamine psychosis. This is characterised by variable amounts of anxiety, auditory and visual hallucinations and feelings of reference. They do not exhibit the specific dissociated and autistic disorganization of thinking associated with schizophrenia. Without definitive or supportive treatment and after care relapse is frequent resulting in hospitalisation. Fluphenazine Enanthate, Thioridazine and Diazepam are used in varying doses as per physical tolerance and clinical response. This phenomenon was recognised as early as 1938 and there is an excellent report on this subject by Connell.

AFTERCARE

Psychiatric help should be sought in obdurate cases where indicated and feasible. In the absence of such referral, the general practitioner should administer those forms of psychotherapy that he is qualified to provide. In cases in which it is not possible to give specific therapy, the general physician can function effectively in a supportive and rehabilitative role. Physician leadership is essential to sound community education and prevention programmes and also in creating a climate where drug dependence is regarded as a medical problem as well as one involving social and law enforcement agencies.

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IMPORTANCE OF CEREBELLAR DYSFUNCTION IN TREMOR MECHANISM

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Introduction of L-Dopa for treatment of parkinsonism has given us the new powerful weapon for analysing the mechanism of symptoms, such as rigidity, tremor and akinesia, in addition to experiences of the stereotaxic neurosurgery

Here specially, the generation of tremorous movement will be discussed.

1. Attitude of tremor in response to L-Dopa therapy is observed quite differently in each case. In about half of the cases of parkinsonism with various grades of tremor, tremor is abolished or markedly reduced. But in other cases, tremor is not changed or in-

fluenced at all or even seems worsened. In such uncommon instances, amplitude of tremor becomes larger and less easy to control voluntarily. We had then the working hypothesis, whether the phenotype or pattern of tremor would be dependent on the grade of muscular rigidity, the latter being more definitely improved or alleviated by L-Dopa therapy.

2. In about twenty years experience of human stereotaxic surgery on the thalamus of parkinsonism, we are very confident that rigidity and tremor are slightly differently located.

Rigidity is easily increased or decreased (abolished) by stimulation or destruction of the ventrolateral nucleus (VL) of the thalamus and tremor is by Ventralis Intermedius nucleus (Vim). VL specially, mainly receives fibres from the pallidum and the Vim, which is posteriorly located to VL and anteriorly to the thalamic sensory nucleus, receives more fibres from the cerebellar dentate nucleus. These may lead to the assumption that interrelation between these two different anatomic-physiological systems may be important for the phenotype of tremor. And it is also hypothesized that a certain level of hypertonus must be important for manifestation of tremor.

3. To prove these, the series of monkey experiments were performed. Three monkeys were cerebellar-hemispherectomized including their deep nuclei (mainly dentate nucleus) and one unilaterally. In all four, the midline vermal structures with deeplying fastigial nuclei remained intact.

These monkeys were then kept and fed chronically at least for four months.

When the harmaline was applied intramuscularly, normal control monkeys did show stiffness of muscles with forebent posturing and shivering-like shaking. But when the same dosage of medicine was given to the chronic operated monkeys, they start to show marked tremorous movement resembling parkinsonian one, as will be shown on the 16mm film.

On the other hand, for the purpose of facilitating the pallidothalamic system, the VL nucleus was electrically stimulated by 60 c/s, 8 – 12V, and 1 msec, and the typical 5 to 6 c/s resting tremor started to appear, which could not be obtained in normal control monkeys.

4. These experimental observations in animal and experiences in human cases suggest the understanding that tremor may appear on the combined basis of some facilitated state of pallido-thalamic system and also of chronic dysfunction of the cerebellar hemispheric circuit. The latter may involve the rubro-olivo-dentate-rubral pathway, as suggested by Poirier.

PSYCHO-SOCIAL AND THERAPEUTIC PROBLEMS RELATED TO EPILEPTIC PERSONALITY

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As we know, epilepsy, under all aspects, may produce grave difficulties on the patient's relationship to his environment, psychologically as well as socially. These problems will be easily or hardly solved according to the extent of tolerance of society. Hence, we just deal with the out-patients (not the institutionalised ones)—those who, although quite able to live in family or society, show some abnormal personality traits and characteristics. We consider 2 cases.

1. Characteristic Abnormalities Observed in:
 - A) *Epileptics with Clinical Seizures*: Among them 40 – 90%, according to the duration of their disease, have the following traits

and characteristics.

- a) *Instability on mood and activity* is the predominant disorder. Epileptic children are often overly aggressive, restless, over-active, moody, stubborn, over-sensitive, while the adult patients have a rigid, unpleasant, irritable personality and may then manifest sudden emotional outbursts in response to apparently slight stimuli, and unconsciously provoke conflicts in their family and office.
- b) *Viscous affection to objects*, persons and traditions related to a certain mental slowness from which a contraction of