

## PSYCHOLOGICAL ASPECTS OF HYPOTHYROIDISM (REVIEW AND CASE STUDY)

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### SUMMARY

The psychological aspects of hypothyroidism are reviewed with reference to the available literature. A case history of hypothyroidism alongwith its psychological manifestations is discussed and a conclusion is drawn that usually four characteristic types of psychological pictures co-exist with hypothyroidism viz. organic brain syndrome, schizophreniform psychoses, affective psychosis, especially the depression and mixed variety. Suggestion for therapy are also outlined.

### REVIEW

Ever since Asher's classical paper (1949) on "Myxoedematous Madness" hypothyroidism has been considered to be closely linked with psychiatric illness. The usual psychological picture in hypothyroidism is that of mental lethargy with general dulling of the personality and slowing of all the cognitive functions. The subjective awareness of these changes would depend on the previous awareness of the bodily functions of the patient. In patients of "Myxoedematous Madness" Asher (1949) presented pictures of organic psychosis, schizophrenia dementia and depression. Olivarius and Roder (1970) considered hypothyroidism to be the most frequently overlooked cause of reversible organic intellectual impairment. The organic psychosis associated with hypothyroidism displays a picture of delirium with florid and bizarre delusions and auditory hallucinations commonly. The condition runs a fluctuating course and at times even in the absence of clouding of consciousness there is evidence of impairment of cognitive functions.

In hypothyroidism, Ingbar and Wocbar (1981) mentioned the slowing of all intellectual functions, memory defects loss of initiative, somnolence and lethargy i. e. a dementia like picture or paranoia, depression or agitation. In these patients there is a delay in seeking medical help as the patients stop complaining and regress to a sluggish indifference. Jellinek (1962) drew attention to grand mal and temporal lobe epilepsy and fainting and cerebrovascular accidents that could occur in hypothyroidism. Ingbar and Wocbar (1981) mentioned that cerebral hypoxia resulting from circulatory alterations predisposed these patients to confusional attacks and syncope which might lead to stupor and coma. Jellinek and Kelley (1960) described cerebellar disturbances in these patients.

### CASE HISTORY

Mrs. P. M., a 40 years old married female with a history of four full-term normal deliveries, was brought for psychiatric consultation with a history of abnormal behaviour characterised by

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refusing to work, disturbing others at the work site, suspiciousness against her neighbours and colleagues, severe anxiety and fearfulness, a feeling that something would happen to her children menorrhagia, insomnia, headache and backache. On physical examination there was puffiness of the face, thickened and swollen fingers, dry and coarse skin, sparse and coarse hairs, brittle nails, enlarged tongue, hoarse voice, and non pitting oedema.

On psychiatric evaluation she was restless and agitated. She entertained hostility against those who had harmed her, "threatening" her children she was depressed and expressed hopelessness. She often cried and would not accept food. At other times she became aggressive and shouted. Following investigations revealed positive findings : (1) ECG showed low voltage (2) serum cholestrol 595 mg/100 ml (3) Urine albumin in traces (4) thyroid functions (a)  $T_3$ -20mg/100 ml (b)  $T_4$ -0.5 mg/100 ml and (c) TSH 39 mg T.V./ml. She was diagnosed as suffering from hypothyroidism with a mixed psychological picture.

#### DISCUSSION

The deficiency of thyroid hormone results in decreased cerebral blood flow, which in turn causes varying degrees of hypoxia and predisposed these patients to confusional attacks, syncope, stupor, coma, epilepsy and slowing of intellectual functioning.

The psychological picture, known to vary from time to time is determined by the prevailing organic state, the reaction formation to the general decrement of intellectual abilities, the unleashing of the underlying personality traits and the reactions of the environment to the altered functioning of the patient. Accord-

dingly the lethargy and withdrawal or suspiciousness and secretiveness are due to accentuation of schizoid or paranoid premorbid personality traits respectively and a full fledged schizophreniform psychosis may occur subsequently. Similarly depression with paranoid tendencies may slowly develop with the uncovering of the underlying depressive traits coupled with the reactions to the behaviour of those around him/her who in turn have reacted to the patients altered behaviour. At times the occurrence of agitation or hypomania could well be the 'reaction formation' against lethargy or depression respectively and speaks for a basic anxiety that plagued these patients suffering from hypothyroidism.

With regard to therapy, in addition to the specific medication to reverse hypothyroidism, it would be essential to treat the psychosis depending on the presenting symptomatology. The use of ECT may also be indicated if the clinical picture so warrants. It is necessary to continue the antipsychotic medication for some years after the clinical picture has attained normalcy because exacerbation of psychotic symptoms are not unknown, especially when the thyroid picture itself fluctuates.

#### REFERENCES

- ASHER, R., (1949). Myxoedematous Madness. *B. M. J.*, 2, 555.
- INGBAR, S. H., & WOEBAR, K. A., (1981). The Thyroid Gland. In: *Textbook of Endocrinology*, (Ed.) Williams. Igaku-Shoin: Saunders International Edition.
- JELLINEK, E. H., (1962). Fits, Faints, Coma and Dementia in Myxoedema. *Lancet*, 2, 255.
- JELLINEK, E. H., & KELLY, R. E., (1960). Cerebellar Syndrome in Myxoedema. *Lancet*, 2, 225.
- OLIVARUS, B., & RÖDER, E., (1970). Reversible Psychosis and Dementia in Myxoedema. *Acta Psych. Scand.*, 46, 1.