
Depression Associated with Physical Illness

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Koho MIYOSHI

Director, Hyogo Institute for Brain Ageing and Cognitive Disorders

Abstract: Depression often accompanies a medical condition. It may also happen that the presence of a chronic disease changes the social situation of a patient, who then responds to the change by developing depression. Among the various systemic diseases, endocrine diseases, viral infections, collagen disease, pancreatic cancer, vitamin B₁₂ deficiency, and folic acid deficiency are particularly likely to cause depression. Drugs, including interferon, methyl dopa, and steroids, may also be the cause of depression. The depression seen in organic brain disease (secondary depression) includes depression in convalescence from disturbance of consciousness caused by head trauma or encephalitis, poststroke depression, and depression in Alzheimer's disease, Parkinson's disease, or other neurodegenerative diseases. The symptoms of depression associated with a medical condition are basically the same as those in endogenous depression, including depressed mood, sadness, diminished mental activity, and impatience. However, depression associated with chronic organic brain disorders is characterized by the predominant symptoms of diminished intellectual capacity, apathetic tendency, lability of mood, retardation in thinking and speech, and flat affect, whereas depressive mood, insomnia, anorexia, low self-esteem, obsessive-compulsive symptoms, and suicidal ideation are mild.

Key words: Secondary depression; Symptomatic depression; Poststroke depression; Depression in Parkinson's disease

Introduction

Mental disorders associated with physical illness are characterized by the symptoms of disturbance of consciousness, disturbance of affect and volition, personality disorder, and dementia. In particular, affective symptoms often accompany physical illness, and depression is most frequent among them. Depression associated with a medical condition can be classified as reactive or psychogenic depression in-

duced by changes in the social situation of the patient or depression directly caused by the medical condition (somatogenic depression). Somatogenic depression is further divided into organic depression due to cerebral disorder and depression associated with systemic disease.

Depression resulting from organic brain disorder (organic depression) has frequently been called secondary depression (or secondary mood disorder) in recent years. This is because the involvement of "organic factors" from the

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viewpoint of biology of the brain has been speculated even in endogenous mental disorders, making the meaning of "organic" somewhat imprecise and unclear.^{1,2)} Secondary depression is regarded as a mental condition that has a particular pattern and is produced by various causes, including physical illness and neurologic disease.³⁾

Clinical Picture of Depression Associated with a Medical Condition

1. Depression as an adjustment disorder

Depression may occur as a result of adjustment disorder (DSM-IV)⁴⁾ in response to stress caused by a medical condition. Beset by changes in the social situation resulting from chronic or severe physical illness, the patient finds difficulty adapting and develops depression. Although this type of depression is triggered by a medical condition, it is not a direct consequence of that condition.

2. Symptomatic depression

Mental disorders that accompany systemic disease are called symptomatic psychoses. Although disturbance of consciousness is commonly the main symptom in symptomatic mental disorders, the manifestation of affective symptoms, particularly depression, is not rare. Systemic diseases liable to induce depression include endocrine diseases such as hyper- and hypothyroidism, hyper- and hypoparathyroidism, hyper- and hypoadrenocorticism, hypoglycemia, Cushing's syndrome, and Addison's disease. In endocrine diseases, symptoms of emotion and volition, rather than intellectual disturbance or dementia, are predominant. Further, depression is likely to occur in patients with viral infection, systemic lupus erythematosus, HIV infection, pancreatic cancer, vitamin B₁₂ deficiency, or folic acid deficiency. Cytokines manifested in systemic diseases are considered to be a cause of depression.⁵⁾

Drugs are another notable cause of depres-

sion. The use of interferon, reserpine, methyl-dopa, or steroids often induces depression.

3. Secondary depression

1) Depression in the recovery stage from disturbance of consciousness

When recovering from disturbance of consciousness caused by head trauma, encephalitis, or other central nervous system disorders, the patient may suffer from lability of mood, irritability, memory disturbance, hallucination or delusion, or depression, for several weeks or months. There are various patterns in the manifestation of these symptoms, with a high frequency of affective symptoms. These patterns include depressive mood combined with amnesic symptoms; marked anxiety and delusion; irritability and impaired social functioning; excessive or inappropriate guilt under depressive mood; inflated self-esteem and grandiosity associated with manic mood; hallucination, and delusion.⁶⁾ It is not uncommon for very mild disturbance of consciousness to underlie depression in organic brain disorder.

2) Depression in neurologic disease

a. Depression in cerebral circulatory disorder

In chronic cerebral vascular insufficiency, affective symptoms such as affective incontinence, depression, euphoria, short temper, irritability, and affective flattening may occur. In particular, depressive mood accompanied by impatience and affective incontinence are often seen.

It is also common for depression to occur after stroke (poststroke depression). Poststroke depression sometimes becomes persistent. Retardation in thinking and behavior is prominent. It has been reported that lesions in the left frontal lobe or basal ganglia are apt to cause depression, with the tendency that the more frontal the lesion, the severer the symptoms.⁷⁾ On the other hand, some researchers consider lesions on the right side more important. Thus, the relation between the manifestation of affective symptoms and the site of the lesion remains controversial. In addition, there

is the view that asymptomatic cerebral infarction serves as the cause of depression.⁸⁾

b. Depression in Alzheimer's disease

It is frequent for affective symptoms such as depressive mood, decreased spontaneity, affective lability, sadness, affective flattening, and anxiety/impatience to occur as prodromal symptoms of dementia in the early stage of Alzheimer's disease. In these cases, anxiety, depressive mood, behavioral retardation, and inactivity are common, whereas feelings of guilt, suicidal ideation, and secondary delusion are rare.⁹⁾

c. Depression in Parkinson's disease

Patients with Parkinson's disease are sometimes misdiagnosed as having depression because of their impassive facial expression and motor retardation. However, beyond these features, depressive state with self-awareness of depressive experience are often seen. This type of depression is attributable to disorders of the dopaminergic projection system in the frontal region, and is considered to be directly related to Parkinson's disease itself.

Depression is a common psychiatric disorder in Parkinson's disease. Mean frequency of the recently reported studies was 40% and the range was 25–70%.¹⁰⁾ Although depressive symptoms occur at the onset of the disease in most cases, depressive mood may occur in some cases as a prodromal symptom preceding neurologic symptoms. Depression is occasionally more prominent in the early stage of disease (Yahr's stages I and II).¹¹⁾ Symptoms are similar to those of endogenous depression. More specifically, depressive mood, loss of interest, feeling of hopelessness, loss of energy, psychomotor retardation, and diminished ability to think or concentrate may occur. The patient also may exhibit irritability, pessimistic view of the future, impatience, sadness, and suicidal ideation.

Conspicuous features of patients' symptoms are considered to be decreased feelings of guilt, self-reproach, and sense of loss, as well as a low incidence of delusion and hallucination, low suicide rate, and lack of diurnal variation. The

occurrence of anxiety/fretfulness, suicidal ideation, and hypochondriacal tendency is not frequent. Although the patient's depressive symptoms can be relieved by antiparkinson drug therapy alone, MAO inhibitors or serotonin reuptake inhibitors may also be used.

d. Depression in other neurologic diseases

Neurodegenerative diseases such as Huntington's disease, progressive supranuclear palsy, fronto-temporal lobe dementia, neurosyphilis, toxic diseases, pellagra, folic acid deficiency, and Wernicke's encephalopathy may be complicated by depression.

Diagnostic Criteria for Depression Associated with Physical Illness

Accurate diagnosis of depression associated with physical illness is extremely important in view of its direct linkage to subsequent treatment. A diagnosis of secondary depression is made when the following criteria are met.

- (1) The depression is difficult to explain by other mental disorders (e.g., adjustment disorder accompanied by depressive mood manifesting as a response to stress from a general medical condition).
- (2) The patient's physical disease is well known to cause depression. Such diseases include endocrine diseases, metabolic diseases, Parkinson's disease, Alzheimer's disease, and cerebrovascular disorders.
- (3) A close temporal relationship exists between the physical disease and the onset of depression.
- (4) Clinical features characteristic of secondary mood disorder are present. In cases of depression as a secondary mood disorder, it is reported that depressive mood, insomnia, anorexia, low self-esteem, obsessive-compulsive symptoms, and suicidal ideation are mild, whereas acquired intellectual impairment, impaired sensorium, self-neglect, lability of mood, hostility, violent behavior, slowed speech and thought, lack of insight, eccentricity, thought process dis-

organization, developmental intellectual deficit, and flat affect are prominent.¹²⁾

- (5) Systemic disease or cerebral nervous disease is evident upon physical examination and laboratory testing.
- (6) The patient has no history of primary affective disorder.

Conclusion

Organic depression, or secondary depression, includes depression common in the recovery stage from disturbance of consciousness, depression directly related to the essence of the disease such as that seen in Parkinson's disease, depression as a prodromal symptom seen in the early stage of Alzheimer's disease, and depression in cerebral circulatory disorders (e.g., poststroke depression). The clinical characteristics of these types of depression have been described.

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