SYMPTOMATIC PSYCHOSIS WITH PELLAGRA

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Common clinical features of 6 cases of symptomatic psychosis with pellagra are highlighted. It is emphasised that early detection and treatment of these cases could lead to prompt recovery from the psychotic symptoms.

Key Words : Pellagra; Psychosis.

Surveys in Hyderabad, South India, showed that 1% of the admissions to the general hospitals, and in certain seasons, 8 to 10% of the admissions to mental hospitals have pellagra.[1] Apart from the nutritional deficiency, many other causes such as carcinoid syndrome, Crohn's disease, Hartnup disease and drugs such as alcohol, INH, 6-mercaptopurine among others contribute to the development of pellagra. Though its gastro-intestinal and dermatological lesions are well described, the psychiatric sequelae are infrequently reported. Cleckley et al[2] had reported some cases of atypical psychotic states due to nicotinic acid deficiency. Sydenstricker[3] observed cases who developed confusional states due to deficiency of nicotinic acid following fever and infection. There are in addition, a few reports of individual cases of pellagra who manifested psychosis during the course of their illness.[4-6] The different types of psychiatric manifestations exhibited ley patients suffering from pellagra were described in a report by Shah et al.[7] The present report deals with clinical descriptions of 6 cases of pellagra who manifested psychosis during the course of their illness.

Case Reports

Case 1

A 21-year-old female presented with the history of hyperpigmented scaly lesions of the exposed areas of the skin, ulceration in the mouth, frequent loose stools, listlessness, social withdrawal and decreased appetite for 4 months. Since 2 months she had become totally withdrawn and irritable. Examination of the mental status, showed gross motor retardation, irritability, ill-sustained attention, disorientation and recent and remote memory impairment. Physical examination revealed hyperpigmented, hyperkeratotic patches over the exposed areas of the skin, with glossy tongue and mild pallor. No other systemic involvements were identified.

Case 2

A 35-year-old female patient presented with history of gradual loss of weight, hyperpigmented scaly skin lesions over the exposed parts of the body, painful recurrent ulcers of the mouth and recurrent diarrhoea for 6 months. Since 6 days the patient was constipated, had urinary incontinence, was sleepless, and showed total withdrawal, with irritability if she was disturbed. There was also spontaneous crying and deterioration in personal hygiene. She often reported that she could see her dead mother in front of her. On mental status examination she showed no concern for her surroundings, occasionally answered questions with monosyllables, showed impaired orientation and memory. She also showed stereotyped motor behaviour. Physical examination revealed a cachexic patient with pallor, glossitis, and hyperpigmented scaly skin lesions over the exposed parts of the body. No other systems were involved.

Case 3

A 19-year-old male was brought with a diagnosis of maniac depressive psychosis-maniac phase, with facial cellulitis and abscess, from a mental hospital. The patient's psychotic

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symptoms were well controlled with chlorpromazine 400 mg/day orally. Six days after the incision and drainage of the abscess he developed a red beefy tongue, complete insomnia, restlessness, difficulty in recognising his family members and behaviour suggestive of visual hallucinations. Mental status examination at this time revealed visual hallucinations, impaired orientation and memory. Physical examination showed the red beefy tongue and no other abnormalities of the skin or other systems. In spite of an increase in the dose of chlorpromazine to 1000 mg/day along with 40 mg/day of haloperidol orally the patient's symptoms did not improve until parental vitamins were given. After vitamin supplements were started all the neuroleptic medication could be withdrawn in 48 hours.

Case 4

A 28-year-old female patient presented with history of scaly skin lesions over the exposed parts of the body, loose stools, sleeplessness and decreased appetite for a period of 1 year. Since 8 days the patient had become suspicious of the fidelity of her husband, and tended to misidentify people. On mental status examination she was agitated, talked irrelevently and incoherently, showed persecutory delusions and had impaired memory and orientation. Physical examination revealed scaly, hyperpigmented skin lesions over the exposed parts of the body, angular stomatitis and pallor. No other systemic involvement was present.

Case 5

A 50-year-old female patient presented with a one year history of loss of weight, loose stools and hyperpigmented skin lesions over the exposed parts of the body. Since 20 days she had developed urinary incontinence, sleeplessness and inability to identify relatives along with irrelevant and incoherent talk. She spontaneously repeated the same words many times, and when questions were asked she echoed them. At times she became restless and aggressive or she sat alone and cried without reason. Mental status examination showed a poorly groomed, uncooperative lady who was agitated, talked spontaneously, irrelevantly and incoherently. She appeared to have visual hallucinations, showed echolalia and verbal perseveration. On physical examination she was cachexic and had hyperpigmented scaly lesions over the exposed parts of the skin, glossitis and pallor. Central nervous system examination revealed bilateral symmetrical hyperreflexia and no other deficits. Other systemic examination was normal.

Case 6

A 37-year-old male patient presented with history of loose stools and loss of weight for 2 months. Since 15 days he was talking irrelevantly tended to forget things, was sleepless and incontinent. Mental status examination showed a poorly groomed individual who appeared depressed and showed gross psychomotor withdrawal. His attention was difficult to arouse and was ill-sustained. He showed impaired memory and orientation. Physical examination revealed a poorly nourished individual with pallor and hyperpigmented scaly lesions over the exposed parts of the skin. Central nervous system examination revealed evidence of peripheral neuropathy and no other features. Other systems were normal.

Comments

The cases described in this report were within the age range of 19 to 50 years. There were 4 females and 2 males. Rice was the staple diet of all the cases. The duration of the illness before detection ranged from 6 days to 1 year. However, the psychotic symptoms which led to the patient being brought to the hospital were of a duration of 6 days to 2 months.

Among the psychotic features that were present, cognitive impairment was consistently found in all the cases. The other symptoms varied. Some showed irritability with increased

psychomotor activity, while others showed psychomotor retardation. Two cases showed visual hallucinations while there was one each with persecutory delusions, stereotypy, echolalia, verbal perseveration, and depression. The presence of cognitive impairment without which other diagnosis such as schizophrenia or depression could have been easily made suggested organic brain syndrome in these cases.

Five of the cases showed skin and mucosal changes, typical of pellagra. In case 3, psychotic symptoms developed rapidly following fascial cellulitis, manifesting themselves only in association with mucosal changes. Sydenstricker[3] reported cases of symptomatic psychosis with pellagra due to acute vitamin deficiency. In some of these cases the onset of illness followed fever and infection which had suddenly imposed an increased metabolic demand.

Impaired biological functions such as sleep and appetite disturbances were the earlier symptoms which were present in all cases. Loose stools were complained by all cases except one case. Another patient had constipation 1 week prior to the presentation. While 2 cases manifested urinary incontinence, one presented with peripheral neuropathy. All cases had mild anaemia.

The clinical descriptions available from these cases highlight the need to test cognitive functions in cases of psychosis. Other features which may be helpful in early detection of these cases are the history of diarrhoea and the presence of skin and mucosal changes.

Symptomatic psychosis secondary to pellagra responds rapidly to nicotinic acid and nicotinamide. A complete resolution of the psychotic symptoms occurs in many cases within 24 to 48 hours, while their symptoms seem to be relatively resistant to neuroleptic medications. In most cases, other B-complex supplements are also required to deal with the deficiencies.

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