

A Case of Pellagra Associated with Long Term Alcoholism

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To the Editor,

Pellagra is a systemic, nutritional disease associated with deficiency of vitamin B3 (niacin) and/or tryptophan and often other B vitamins (1). Pellagra is mostly seen in chronic alcoholics as a result of nutritionally poor diet and malabsorption (2). We present a pellagra case with long history of alcohol use, admitted with psychiatric complaints to our clinic.

Mr. A. was a 44 year old, married, primary school graduate male, who was running a coffeehouse. His socioeconomic status was low. His complaints were irritability, nausea, vomiting and loss of appetite. He had been drinking alcohol every day, for 33 years; its amount had increased to about 100 cl for the last 15 years. The longest duration of remission was 3 months, when he was 13 years old. He was experiencing sweating, tremor of hands, insomnia, and irritability as withdrawal symptoms. In the last 2 years, periodically, he had problems in focusing and maintaining attention, delay in reaction time in answering any questions. He had depressive symptoms for 1 year and he had attempted suicide. In the last 2 months, he had diarrhea, vomiting, loss of appetite and erythema, followed by dark discoloration on the dorsal surfaces of his hands. On physical examination, hyperkeratotic plaques with well-defined borders on the dorsal surfaces of both hands, squamous lesions between fingers of both feet,

loss of villi and hyperemia on the tongue was detected. He had tremor of both hands and wide-based gait. On psychiatric examination, he was confused, his time orientation was disturbed, self care was poor. Affect was restricted; associations and psychomotor activity were slow. The possibility of pellagra was considered as dermatitis, diarrhea and distortion of cognitive functions were observed. Electrocardiography (ECG), complete blood count, routine blood biochemical tests, routine urine tests, thyroid function tests, VDRL, microscopic stool examination, electroencephalography (EEG), vitamin B12 and folate measurements, cranial MRI, echocardiography, esophago-gastro-duodenoscopy were performed and no significant pathology was detected. As the patient's symptoms did not respond to oral niacin treatment, niacin malabsorption was considered and a mixture of vitamin B1, B2, B6, B12, nicotinamide and dexamethasone was given by intramuscular injection and a dramatic recovery was observed.

Pellagra is characterized by photosensitive symmetrical skin lesions, gastrointestinal disturbances, neurologic and psychiatric manifestations. The syndrome is known as "4 D's": dermatitis, diarrhea, dementia and death (1). Skin lesions seen in pellagra are photosensitive rash, primarily on the dorsal surfaces of the hands, arms, face and feet. In acute phase, skin lesions are erythema and bullae which resemble

sunburn (wet pellagra), but after exposure to sun light, progress to chronic, symmetrical, scaled lesions occurs. Typically they are located on the neck (Casal necklace), hands and forearms (pellagra gauntlet) (3). Irritability, concentration problems, anxiety, fatigue, restlessness, apathy and depression are common psychiatric and neurological manifestations. Even uncommon, psychosis can be seen in pellagra, especially in pellagroid encephalopathy mostly encountered in chronic alcoholics. Confusion and eventually death occurs as the disease progresses (4). Gastrointestinal manifestations are fissures on the tongue and mouth, sourness, loss of appetite, dyspepsia and abdominal

pain. Enteritis, which can be severe with nausea, vomiting and diarrhea can also be seen (5). Diagnosis is based on patient's history and physical examination. There are no chemical tests to definitely diagnose pellagra (6).

In conclusion, low socioeconomic status, long duration of alcohol use, poor diet and characteristic findings should suggest pellagra, although it is a rare disease nowadays. It shouldn't be considered as a disease that is seen only in undeveloped countries and considering pellagra in the differential diagnosis in chronic alcoholics with psychiatric, dermatologic and gastrointestinal symptoms has vital importance.

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