Acute Psychosis: A Presentation of Cyanocobalamin Deficiency Megaloblastic Anemia

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Abstract Cyanocobalamin deficiency is not rare in India. Patients present with megaloblastic anemia, pancytopenia and sometimes neuropsychiatric manifestations. Subacute combined degeneration of the cord, peripheral neuropathy, dementia, psychotic depression and paranoid schizophrenia are well reported. We are reporting a case of cyanocobalamin deficiency anemia who presented with acute psychosis which readily reversed on cyanocobalamin replacement.

Keywords Psychosis · Cyanocobalamin deficiency · Vitamin B12 · Megaloblastic anemia · SCD

This 25 year old male student was referred from department of psychiatry for management of anemia and altered behavior. Patient had history of altered sleep pattern, excessive and irrelevant talking, picking of clothes and inability to recognize family members for last 1 week.

There was no history of fever, headache, vomiting, head trauma, drug intake or any addiction. No history of past psychiatric illness or memory loss was there. Patient had symptoms of anemia in past and was vegetarian.

During routine investigations, hemogram showed severe anemia, thrombocytopenia, low normal leucocyte counts, MCV-110.9 fL, MCH-38 pg and MCHC-32 g/dL. Diagnosis of megaloblastic anemia was made. B12 levels were 77.12 pmol/L (Normal 200–800 pmol/L). CSF examination, CT head and electrolytes were within normal limits.

Patient was given cyanocobalamin in dose of 1000 µg I.M daily. Marked clinical improvement started appearing on day 3. Patient was discharged on day 5 on B12 supplementation. No antipsychotics were given. In follow up patient is doing well.

Discussion

Patients of cobalamin deficiency can develop neurological syndrome in presence or even absence of megaloblastic anemia [1]. Advanced neurological deficit may not be reversed even after treatment, therefore early recognition of deficiency is important. Subacute combined degeneration of the cord (SCD) is the common and classical presentation. This begins with paresthesia of feet and fingers due to peripheral neuropathy, disturbances of vibratory sense and proprioception due to posterior column involvement followed by spastic ataxia due to involvement of lateral and dorsal columns of spinal cord [2]. Dementia is another common neurological manifestation and mimics Alzheimer's disease [3]. Somnolence, perversion of taste, smell and vision has also been reported. B12 deficiency can also present as acute reversible extrapyramidal syndrome [4].

Various psychiatric manifestations can occur in cobalamin deficiency [5]. Psychotic depression, paranoid schizophrenia [6] and other mood changes have been commonly reported. Reports on acute psychosis in cobalamin deficiency are rare [7]. These manifestations have been commonly reported in old persons.

We are reporting a case of young person presenting with acute psychosis due to cyanocobalamin deficiency which reversed on treatment. Purpose of this reporting is that we should consider deficiency of B12 in our patients of acute psychosis whether patient presents with anemia or without.

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