

PERIODIC CATATONIA: A CASE REPORT

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Introduction

The clinical description of periodic catatonia is well documented by the earliest exponents of psychiatry. Gjessing (1935) carried out extensive metabolic and clinical studies in cases of periodic catatonia. He reported diphasic course of nitrogen metabolism associated with periodic mental changes and described 3 types of syntonic synchronous (S.S.) periodic catatonias, Type A, B and C. (Gjessing 1935, Gjessing and Gjessing 1961). In type A, the psychotic illness started just before the end of nitrogen retention and continued during negative nitrogen balance, in type B it started at the mid point and in type C it started towards the end of negative nitrogen balance and nitrogen retention was found through-out the phase of psychosis. Jenner (1967) commented that it was very difficult not to find cases analogous to Gjessing's periodic catatonia. We present a report of a patient who was found to have unmistakable evidence of type C periodic catatonia.

Case Report

GR, 26 years old, married, Hindu, male sepoy in Artillery Regiment with 7 years of uneventful military service was brought to a large military hospital in North India at 1600 hrs in stuporous state. He felt feverish, tired and giddy on that morning and became stuporous around

1300 hrs on the same day. At hospital MI room, the sound of syringe and instruments for giving him injection made him get up and cry. A provisional diagnosis of hysterical reaction was made and he was admitted in the Psychiatry ward. He continued to behave rationally for next 6 days except for frequently urging nursing staff and doctor for an early discharge.

On the 6th day he got into state of extreme frenzy under hallucinatory command 'unless you touch electric wire, you will not get discharged from hospital'. He climbed the roof and successfully touched over-hanging electric wires with a resultant fall to the ground due to electric shock. He sustained superficial electric burns over both forearms and thighs. He was shifted to Intensive Care Unit. He passed high coloured urine which on examination revealed few RBCs. This finding prompted serial investigations of blood urea and serum creatinine.

On 10th day he showed sudden deterioration in his mental status with rising values of blood urea and serum creatinine (Fig.1). He showed extreme restlessness, ideas against staff, quarrelsome attitude towards escorts, insomnia and negativism. This continued up to 15th day and progressed into stuporous state abruptly with associated findings of rigidity of limbs, face, abdomen, grimacing and stereotypies. On the 18th day, i.e. after 3 days of stuporous

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state, he showed signs of recovery. During this period from 10th to 18th day he was treated as a case of uraemia with injection Lasix, antibiotics, low protein diet and other supportive measures. He remained symptom free from 18th to 21st day.

On the 21st day he again showed rapid onset of stuporous state. He was found to have similar concurrent changes in blood urea and serum creatinine. The case was thoroughly examined by Senior Adviser in Medicine who excluded any renal pathology for high blood urea and creatinine. The case was advised to be managed by psychiatrist. This state of stupor lasted for 3 days only i.e. from 21st day to 24th day of hospitalization. He was put on neuroleptics and ECT. He showed steady and consistent improvement thereafter.

Six weeks after the onset of illness patient had accidental fall in bath room which further traumatized his old healing wound in right forearm with profuse arterial bleeding. He was promptly treated with ligation of ulnar artery. He developed weakness of small muscles of right hand due to damage to ulnar nerve. He was referred to Artificial limb centre for fixing up of dynamic splint. He was admitted to our ward for psychiatric management.

Past, Family and Personal History

Medical documents revealed that patient had stated that he was possessed by spirits and had had 3 similar attacks in the past details of which are not available. Family history revealed no evidence of emotional problems, pecuniary difficulties or mental illness. He got education up to higher secondary and got enrolled in Army out of love for Army. He had 7 uneventful years of service in Army and was reported to be alert, active with good behaviour. Dietary habits were vegetarian and there was no history of alcohol or drug abuse.

His basic personality traits showed good adjustment and extroversion.

Examination

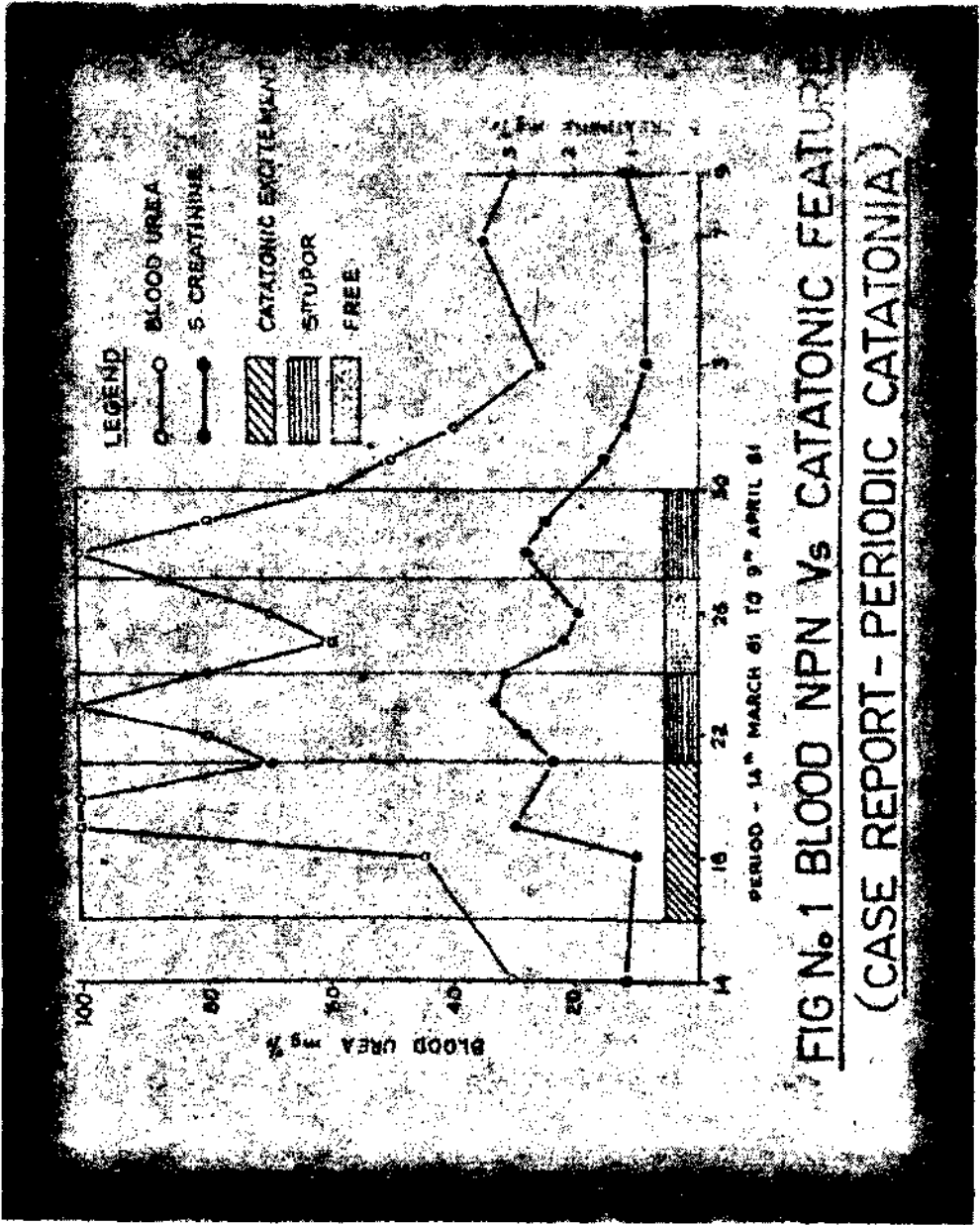
Physical examination revealed all clinical parameters within normal limits except for patchy anesthesia right palm and grade IV muscle power in small muscle right hand. Healthy electric burns scar were seen over both forearm, right thigh and left gluteal regions. Psychological examination revealed no psychotic features. But he showed complete amnesia for the period indicating retrograde and anterograde components. His immediate, recent and past memory otherwise were found to be normal.

Investigations

Serial recording of mental status, BP and urinalysis (Table 1) showed autonomic disturbances with mental changes. Urinary parameters did not show any oliguria and revealed only minor changes on microscopic examination. The serial values of blood urea and serum creatinine along with mental changes (Fig. 1, Table 1) during the period of disturbance show almost three fold rise of these metabolic parameters during phases of catatonic excitement and stupor. The parameters also show normal values in the free intervals. The whole range of renal function tests were done 2 months later at Command Pathology Laboratory. They were found to be normal. Other investigations like LFT, GSF, STS and blood sugar were also found to be within normal limits.

Discussion

The above clinical profile of episodic onset of catatonic excitement and persecutory ideation, perceptual abnormalities with associated shift in metabolic nitrogen balance is diagnostic of periodic catatonia. Further the metabolic shift followed the



**FIG No 1 BLOOD NPN Vs CATATONIC FEATURE
(CASE REPORT - PERIODIC CATATONIA)**

Table 1
Serial values of Clinical and Biochemical Parameters

Dates	Mental Status	B P mm Hg	Urinary Output (Lit/day)	Blood urea (mg%)	Serum creatinine (mg%)
14/3	Post Frenzy	180/110	1.3	—	—
18/3	Catatonic excitement	—	—	50	1.0
19/3	-do-	168/98	2.5	100	3
20/3	-do-	—	—	100	—
21/3	Catatonic stupor	180/110	1.8	70	2.4
22/3	-do-	—	—	80	2.8
23/3	-do-	160/98	2.5	100	3.3
24/3	Free interval	—	—	80	3.3
25/3	-do-	140/66	2.8	60	2.2
26/3	-do-	—	—	70	2.0
27/3	Catatonic stupor	—	—	—	2.8
28/3	-do-	120/70	4.1	100	2.5
29/3	-do-	—	—	80	—
1/4	Convalescence	124/74	4.0	—	—
12/10	Asymptomatic	124/74	2.9	25	1.2

pattern of type C syntonc synchronous periodic catatonia of Gjessing's description in that catatonic excitement and stupor occurred during the phase of nitrogen retention. Neuroleptic and ECT during first two episodes and most of 3rd episode of stupor were not given due to mistaken diagnosis of uraemia of obscure renal origin, may have aided in clinicobiochemical presentation of Gjessing's description in this case. The importance of doing serial estimations of blood

urea and serum creatinine in all such cases of catatonic symptoms is highlighted.

References

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