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CASE REPORT / OLGU SUNUMU

Sertraline Related Neuroleptic Malignant Syndrome: Case Report

Sertalin İlişkili Nöroleptik Malign Sendrom: Vaka Raporu

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ABSTRACT

Neuroleptic Malignant Syndrome (NMS) is a potentially mortal disease which presents with hyperthermia, extrapyramidal symptoms, autonomic nervous system disorders and unconsciousness. Diagnosis is difficult, the most important determining factor is the sudden interruption of anti-Parkinson's drugs and the reduction of their dosage. In this case report, we aimed to describe a case report of a patient with Neuroleptic Malignant Syndrome due to long-term use of sertraline.

A 72 year old woman was brought to the emergency department with a complaint of confusion and fever. The patient was confused and looking apathetic. The patient was hypertensive, had a body temperature of 38.5 °C and had a stiff neck and motor weakness in the right upper and lower extremities. Urgent neurological intervention was not considered by the neurologists because cranial CT and diffusion MRI showed no signs of hemorrhage or infarction. Lumbar puncture was performed. No pathological sign was found in the cerebrospinal fluid. Meningitis and encephalitis was not considered by the infectious diseases department. During the follow-up, the patient's relatives revealed that the patient was being given 100mg sertraline each day for the last 7 days. These symptoms were thought to be due to NMS, and the patient started to recover with antihypertensive, antipyretic and supportive fluid therapy. The patient was consulted to the psychiatry and was hospitalized to the intensive care unit with a diagnose of Neuroleptic Malignant Syndrome.

Neuroleptic Malignant Syndrome (NMS) is one of the neurological emergencies and can be mortal. It is usually seen due to use of antipsychotic drugs (like haloperidol) or abrupt discontinuation of dopaminergic drugs. All NMS cases might not show all the characteristic symptoms. It should be remembered that the early fluid and supportive therapy is crucial and NMS can be caused by different drugs.

Key words: Sertraline, Neuroleptic Malignant Syndrome

ÖZET

Nöroleptik Malign Sendrom (NMS), hipertermi, ekstrapiramidal semptomlar, otonomik sinir sistemi bozuklukları ve bilinç kaybı ile ortaya çıkan potansiyel ölümcül bir hastalıktır. Tanı konması oldukça zordur ve en önemli belirleyici faktör, Parkinson ilaçlarının bir anda kesilmesi veya dozunun aniden azaltılmasıdır. Bu vakada uzun süreli sertralin kullanımına bağlı gelişen Nöroleptik Malign Sendromu olan bir hastayı sunmayı amaçladık.

72 yaşında kadın hasta, bilinç bulanıklığı ve ateş şikayeti ile acil servise getirildi. Hastanın yaşamsal değerlerinde hipertansif ve 38.5 ° C vücut ısısına sahip olması ve fizik muayenesinde sağ üst ve alt ekstremitelerinde kuvvet kaybı ve ense sertliği dikkat çekti. Hastanın kranial bilgisayarlı tomografisi ve difüzyon MR tetkiklerinde kanama veya enfarkt lehine bir bulgu saptanmadığı için nöroloji bölümü tarafından acil nöropatoloji düşünülmedi. Lomber ponksiyon yapıldıktan sonra beyin omurilik sıvısında herhangi bir patolojik bulguya rastlanmadı. Enfeksiyon hastalıkları tarafından hastada menenjit veya ensefalit varlığı düşünülmedi. Takibinde yakınları tarafından hastaya son 7 gün boyunca her gün 100 mg sertralin verildiği ortaya çıktı. Bütün bu bulgular ışığında hastada malign nöroleptik sendrom (MNS) düşünüldü ve antihipertansif ve sıvı tedavisi başlandı. Hasta psikiatri bölümüne konsülte edildi ve MNS tanısı ile yoğun bakım ünitesine yatırıldı.

Malign Nöroleptik Sendrom (MNS) nörolojik acil durumlardan biridir ve ölümcül olabilir. Genellikle antipsikotik ilaçların (haloperidol gibi) veya dopaminerjik ilaçların aniden kesilmesine bağlı olarak görülür. Sertralin ile birlikte bazı dopaminerjik ilaçların kullanımına veya kesilmesine bağlı MNS vakaları bildirilmiş olsa da tek başına sertralin kullanımına bağlı gelişen bir MNS vakası henüz bildirilmemiştir.

Anahtar kelimeler: Sertralin, Nöroleptik Malign Sendrom

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Introduction:

Neuroleptic Malignant Syndrome (NMS) is a potentially mortal disease which presents with hyperthermia, extrapyramidal symptoms, autonomic nervous system disorders and unconsciousness. Diagnosis is difficult, the most important determining factor is the sudden interruption of anti-Parkinson's drugs and the reduction of their dosage (1). It is thought that neurotransmitters like GABA, acetylcholine and serotonin is included in this mechanism. Another theory is that neuroleptics have a direct toxic effect on the striated muscle tissue (2).

This syndrome can occur at any stage of the treatment regardless of the duration of use and dose of the antipsychotics and may occur during the treatment with (SSRI) (7).

In this case report, we aimed to describe a patient with Neuroleptic Malignant Syndrome due to long-term use of sertraline.

Case:

A 72 year old woman was brought to the emergency department with a complaint of confusion and fever. The overall situation of the patient was moderate-bad, confused and was looking apathetic. The vital signs of the patient was TA:204/88 mm/Hg, HR:96/min, sPO2:89%, RR:25/min and the body temperature was 38.5 C. The patient had a stiff neck and motor weakness in the right upper and lower extremities.

Routine lab test results were; glucose:140mg/dl, WBC:14.5K/Ul, hgb:11.8g/dl, plt:203K/Ul, CRP:7.2mg/dl, procalsitonin:1ng/ml, Na:123meq/l, K:4meq/l and CK:238U/L. Liver and kidney function tests were normal.

Cranial CT and MR diffusion showed no signs of acute intra-cranial bleeding or infarct. Urgent neurological intervention was not considered.

Lumbar puncture was performed. No pathological sign was found in the cerebrospinal fluid. Meningitis and encephalitis was not considered by the infectious diseases department.

The patient was consulted to the internal diseases department and hypertensive encephalopathy was ruled out since the arterial tension of the patient at the time was 115/80mm/Hg.

During the follow-up, the patient's relatives revealed that the patient was being given 100mg sertraline each day for the last 7 days.

These symptoms were thought to be due to NMS in the patient who started to recover with antihypertensive, antipyretic and supportive fluid therapy. The patient was consulted to the psychiatry and was hospitalized to the intensive care unit with a diagnose of Neuroleptic Malignant Syndrome.

Discussion:

Neuroleptic Malignant Syndrome (NMS) is one of the neurological emergencies and can be mortal. It is usually seen due to use of antipsychotic drugs (like haloperidol) or abrupt discontinuation of dopaminergic drugs.

Recent studies showed that NMS can be related with olanzapine, aripiprazole or valproate intake (3,4,5). Although it is rare, NMS related with the use of sertraline and antipsychotic drugs was reported (6).

All NMS cases might not show all the characteristic symptoms. Bipolar patient using lithium and paliperidone palmitate who was diagnosed with NMS, reported to be presenting with unconsciousness, incontinence, extensive rigidity and clonus in bilateral lower extremities (7). It is not exactly known how sertraline causes the Neuroleptic Malignant Syndrome (NMS). Sertraline has no direct effect on the dopaminergic system. One of the potential mechanisms is increasing central serotonin levels and leading to a relative central hypodopaminergic state (7).

Our case was meeting Nierenberg NMS and DSM IV criteria. In our research we did not come along any study reporting NMS caused by SSRI use only. It should be remembered that the early fluid and supportive therapy is crucial and NMS can be caused by different drugs.

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