

NEUROSYPHILIS AND ORGANIC PSYCHOTIC DISORDER: A Case Report

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ABSTRACT

Neurosyphilis is a form of syphilis with invasion of Central Nervous System and neurological signs. Neurosyphilis can present a variety of behavioral symptoms, including mania, depression and psychosis. Monitoring VDRL titers in CSF (Cerebrospinal Fluid) is valuable for the diagnosis but it has to be confirmed with non-treponemal tests. We describe the case of a 42-year-old woman who presented with forgetfulness, behavioral changes, aggressive behavior, undressing and continuous talks about irrational matters. There was no improvement on her psychotic symptoms even though application of antipsychotic medication. Her serum and CSF detection findings showed the diagnosis of neurosyphilis. Neurosyphilis is a mysterious disease because of imitating psychiatric diseases and leading difficulties in differentiating the diagnosis. Our aim of presenting this case is that neurosyphilis is presented with only neuropsychiatric symptoms and especially in resistant psychotic disorder; neurosyphilis should be evaluated in differentiating the diagnosis.

Keywords: neurosyphilis, neuropsychiatric symptoms, psychosis, penicillin

ÖZET

Nörosifiliz ve Organik Psikotik Bozukluk: Vak'a Sunumu

Nörosifiliz, nörolojik belirtileri olan ve merkezi sinir sistemini (MSS) tutan sifilizin bir formudur. Mani, depresyon ve psikozu içeren değişik davranış belirtileri bulunabilir. MSS'de VDRL titrasyonunun gözlenmesi tanı için kayda değerdir, ancak treponemal olmayan testlerle de doğrulanmalıdır. Bu yazıda unutkanlık, davranış değişiklikleri, saldırgan davranış, soyunma, rahatsız edici konular hakkında sürekli konuşmaları olan 42 yaşında kadın vak'a sunulmuştur. Antipsikotik tedavi uygulanmasına rağmen psikotik belirtilerde düzelme olmamıştır. Serum ve serebrospinal sıvı tetkikleri nörosifiliz tanısını doğrulamıştır. Nörosifiliz psikiyatrik bozuklukları taklit etmesi ve ayırıcı tanıda güçlüğü yol açması nedeniyle gizemli bir hastalıktır. Özellikle dirençli psikotik bozukluk ve sadece nöropsikiyatrik belirtileri olan bu olguyu sunmadaki amaç, nörosifiliz tanısının farklı değerlendirilmesi gerektiğidir.

Anahtar Kelimeler: nörosifiliz, nöropsikiyatrik belirtiler, psikoz, penisilin

INTRODUCTION

The widespread and somewhat indiscriminate use of antibiotics during recent years has considerably altered the clinical patterns of syphilis and neurosyphilis (Roberts et al. 1992, Johnstone et al. 1987). The disease has not been eliminated and its typical forms are frequently replaced by atypical or masked forms, which have psychiatric symptoms that include depression, fury and/or psychosis (Kararizou et al. 1983, Telci et al. 2006).

This not only creates diagnostic problems but also leads to the wrong therapeutic decisions being made. The diagnosis and treatment of neurosyphilis becomes even more complicated and clinically important when we consider the resurgence of syphilis worldwide, not only in developing countries but also in Western societies, and the increase in immigrant populations (Sanchez and Zisselman 2007, Hook 1987).

In this study, we describe a case that initially presented as persistent headache and untreatable psychotic symptoms, which was subsequently diagnosed as neurosyphilis during the clinical evaluation.

CASE

42 year-old woman was brought to the hospital with forgetfulness, behavioral changes, aggressive behavior, undressing and continuous talks about irrational matters and then hospitalized.

A year ago she attempted to suicide jumping from the 3rd floor. She hadn't got any psychiatric treatment in that period. Three months ago before her hospitalization she began to take sertraline 50 mg/day because of her suffers just as refusing the meals, staying at home and sleeping all day long. With this treatment there hadn't been any change in her sleeping and eating problems but in last 10 days before her hospitalization she began to put the furnishings into the trash saying that "My sister called me and asked me to arrange home".

On examination in psychiatry service she was observed as cooperated and had disorganized behaviors. She was giving inappropriate answers to questions. She did not also have place and time orientation. Psychomotor activity was normal, affect was inappropriate. She had grandiose delusions and auditory hallucinations.

When it was informed that this situation appeared after the antidepressant intake, it was thought that a manic switch had been developed by antidepressant medication. Laboratory results were normal. Only amphetamine was positive in urine metabolites. Mini mental state test (MMST) score was 9, Brief Psychiat-

ric Rating Scale score (BPRS) was 28. Haloperidol ampoule 20 mg/day, biperiden ampoule 10 mg/day were applied. Two days later, serious extra pyramidal symptoms and urine incontinency were developed. Haloperidol was stopped. Medication was continued biperiden 10 mg/day and diazepam 10 mg/day. Because of serious neuroleptic susceptibility and falling to the right side down while walking she was consulted by a neurologist. It was recommended that the treatment should be continued without any change, and then be added.

A week later rigidity was reduced but psychotic symptoms were going on. That's why olanzapine 10 mg/day was added to the treatment. Serious EPS findings were developed again two days later. Therefore, olanzapine was stopped. Neurological consultation was repeated with cranial tomography revealed bilateral arachnoidal cyst, suspect hypodensity at right hemisphere. It was thought that elevated susceptibility of neuroleptic could be related with degeneration of basal ganglia. Therefore; brain magnetic resonance (MRI), EEG, vitamin B12 level, HIV and hepatitis markers, VDRL test and urine amphetamine level were analyzed.

Cranial MRI revealed lacunars infarcts at commissural branches between caput and corpus of left nucleus caudatus, nonspecific gliotic changes in deep white matter and cerebral atrophy. VDRL was positive, vitamin B12 level was low; hepatitis and HIV markers were negative. She was consulted with a neurologist again and transferred to neurology service. After the transferee, she was observed as partly cooperated. Her orientation was deteriorated. Because of the existence of general rigidity, neck stiffness couldn't be evaluated. In her neurological examination a day later, she had neck stiffness, quick reflexes and bilateral plantar flexor reflexes. She was walking with petit steps and had a tendency of falling down to right side.

At first day at neurology service, she had a fever and her body temperature was 40°C. Seftriaxone was begun empirically. CSF analysis showed positive results of VDRL-RPR, VDRL1/16. The 26000 lymphocytes/mm³ and positive treponema pallidum haemagglutination test were found in her serum. Therefore, penicillin 2.4 million units IM once daily was given during the next 21 days. When evaluated at 19th day of penicillin treatment, she was conscious and cooperated. She said "I felt myself as waking up from a dream knowing that the events I had mentioned before weren't real." MMST score was 23, BPRS score was 11. No pathological finding was found in her physical examination.

Her treatment arranged as a depot preparation of penicillin 2.4 million units IM monthly at discharge. Her control examination couldn't be performed because she moved to another city. She partially improved and had sufficient social adaptation according to information from her family.

DISCUSSION

Neurosyphilis develops in one third of the patients who progress to late stages of syphilis. The CNS may be involved at almost any stage of the disease; it may occur from weeks to decades after the initial infection. The patient described here presented with multitudes of psychiatric signs and symptoms (Roberts et al. 1992, Johnstone et al. 1987, Kararizou et al. 1983). Our patient with neurosyphilis can also present with many different physical or neurologic symptoms that lead to admission or follow-up at a medical or neurology unit.

Roberts et al. was reported that the rate of neurosyphilis among psychiatric patients was 1.3% (Roberts et al. 1992). Case reports about neurosyphilis are limited in our country (Tomruk et al. 1998, Bozdemir et al. 2000). Tomruk et al. (1998) reported that a patient with schizophrenia who had cognitive impairment, multiple hospitalizations and treatment resistance diagnosed neurosyphilis after many years. Course of their case was similar to our case. Bozdemir et al. (2000) reported that two different neurosyphilis cases were treated IV penicillin during two weeks. They suggested that clinical symptoms of one of these cases who had serious neurologic signs and partially remission after the treatment were irreversible. Remission of neurosyphilis may depend on severity of parenchyma damage. Cerebrospinal fluid spontaneously returned to normal, but recovery is seldom (Sanchez and Zisselman 2007, Hook 1987, Sivakumar and Okocha 1992). After penicillin treatment of our case, psychotic symptoms and cognitive functions were complete and partial remission respectively.

What was interesting about this case discussed here was that all patients showed exclusively psychiatric manifestations, leading to direct admission to a psychiatric unit rather than a medical or neurology unit with psychiatric consultation. The point we are trying to emphasize here is that clinicians-including

internists and neurologists, and especially psychiatrists, need to have a high index of suspicion of neurosyphilis, which may have an exclusively psychiatric presentation rather than medical or neurologic symptoms, because, despite a dramatic decline in the incidence of neurosyphilis since the early 20th century, new cases are still occurring. Without such awareness on the part of clinicians, not only will this diagnosis be missed, but an extensive and unnecessary laboratory investigation, and its associated tremendous costs, will follow.

CONCLUSION

Clinicians, especially psychiatrists, need to remain aware of the clinical presentation, diagnosis, and treatment of neurosyphilis, because many patients with neurosyphilis present with subtle personality changes, dementia, or delirium, which creates a diagnostic dilemma. Therefore, serologic tests for syphilis should be a routine part of the evaluation of patients who present with neuropsychiatric symptoms.

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