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Case Report / Olgu Sunumu

## Possible Association Between Resection of a Frontal Meningioma and Late Onset Obsessive Compulsive Disorder : A Case Report

Frontal Menenjiom Rezeksiyonu ve Geç Başlangıçlı Obsesif-Kompulsif Bozukluk Arasında Muhtemel İlişki: Bir Vaka Raporu

Yakup Albayrak<sup>1</sup>, Cüneyt Ünsal<sup>1</sup>, Mesut Emre Yaman<sup>2</sup>, Sena Yenel Özbay<sup>3</sup>

<sup>1</sup>Namık Kemal Üniversitesi Tıp Fakültesi, Ruh Sağlığı ve Hastalıkları AD, Tekirdağ, Türkiye

<sup>2</sup>Yenimahalle Devlet Hastanesi, Beyin Cerrahi Bölümü, Ankara, Türkiye

<sup>3</sup>Medipol Hastanesi, Psikiyatri Bölümü, İstanbul, Türkiye

### Abstract

Obsessive-compulsive disorder (OCD) is common and frequently disabling psychiatric disorder. The onset of OCD is usually in adolescence and early adulthood. In literature there are limited case reports which were investigating the association between frontal brain tumors and OCD. In this paper, we report a case who developed late onset OCD after resection of a frontal meningioma.

**Key words:** Late, obsessive, frontal lobe.

### Özet

Obsesif-Kompulsif Bozukluk (OKB) yaygın ve sıklıkla işgücü kaybına sebep olan psikiyatrik bir bozukluktur. OKB'nin başlangıcı genellikle yetişkinlikte ve yetişkinliğin erken dönemlerinde olur. Literatürde frontal beyin tümörleri ve OKB arasındaki ilişkiyi inceleyen sınırlı sayıda vaka raporu bulunmaktadır. Bu yazıda, Frontal menenjiom rezeksiyonu sonrasında geç başlangıçlı OKB geliştiren bir vaka sunmaktayız.

**Anahtar kelimeler:** Geç, obsesif, frontal lob.

### Introduction

Obsessive-compulsive disorder (OCD) is relatively common and frequently disabling psychiatric disorder<sup>1</sup>. The onset of OCD is usually in adolescence and early adulthood. Especially in cases with onset after age 40, the possibility of an underlying medical cause should be investigated<sup>2</sup>. Here we report a case who developed late onset OCD after resection of a frontal meningioma.

### Case Report

A 55 year old married woman admitted to

psychiatry out patient clinic with symptoms of obsessive-compulsive disorder. In history, she had had severe headache for three years and she had admitted to neurology two years ago. After pshysical examination brain magnetic resonance imaging (MRI) had performed for differential diagnosis. Brain MRI detected a right frontal extraaxial lesion. She had been consulted to neurosurgery, and had been operated. The pathologic diagnosis had been resulted as meningioma. After two months being removed of her tumor, she avoided handshakes, touching money and she had also

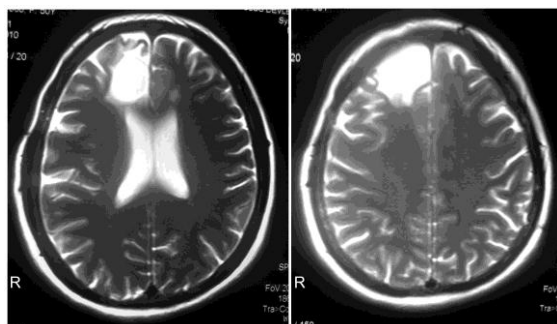
### Corresponding Author / Sorumlu Yazar:

Yrd. Doç. Dr. Yakup Albayrak  
Namık Kemal Üniversitesi Tıp Fakültesi, Ruh Sağlığı ve Hastalıkları AD, Tekirdağ, Türkiye  
Tel: 0 282 250 5265  
e-mail: dr.fuge@hotmail.com

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difficulty opening doors, furnitures. Physical examination, blood chemistry, hemogram and thyroid function tests were in normal limits. EEG did not revealed any abnormality. It was her first psychiatric admission and she had no family history of any psychiatric and neurological disorders. On psychiatric examination excessive anxiety, contamination obsessions and cleaning compulsions were noted. Her Yale Brown OC Scale<sup>3</sup> (Y-BOCS) score was 28. She was diagnosed obsessive-compulsive disorder according to The Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR). Brain MRI showed, postoperative changes on the right medial aspect of the frontal region (Figure 1).



**Figure 1.** Patient was started on a treatment with citalopram 20 mg/day and gradually raised to 40 mg/day. Her symptoms resolved after 8 weeks of treatment. On third month, she continues her treatment and remains asymptomatic.

## Discussion

The modern concept of OCD is considered to be a brain-based illness developed from three main branches. First; cases of secondary OCD with or following a systemic or neurologic illness; second, functional neuroimaging studies which highlighted differences in cases of idiopathic OCD compared with normal control subjects and third; the efficacy of some neurosurgical interventions in some refractor cases 2. Some studies have investigated the development of symptoms after brain injury.

Damage to the basal ganglia-especially caudate-, frontal cortex, and anterior cingulate cortex are associated developing the symptoms of OCD after brain injury<sup>4</sup>.

The majority of structural and functional imaging studies have demonstrated differences in the frontal cortex- especially prefrontal cortex- between patients with OCD and healthy subjects 5; however in literature there are limited case reports which were investigating the association between frontal brain tumors and OCD. Ward, firstly reported two cases who had frontal lobe tumor that caused transient feelings of compulsions 6. John et al. reported late onset anxiety and obsession in a patient with left frontal glioma<sup>7</sup>. Tei et al. reported paroxysmal compulsion in a patient with meningioma in the left supplementary motor area<sup>8</sup>. In our case, patient had no psychiatric history and interestingly the onset of OCD was after neurosurgical treatment and patient had not any cognitive disorder accompanying to OCD. Thus, we argue that our case is important for demonstrating the direct association between frontal lobe and OCD and also it might have an importance to give a viewpoint for neurosurgeons to screen patients for OCD after frontal brain surgery and for psychiatrists to screen carefully organic causes in patients with late onset OCD.

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