

# Fibrous Dysplasia Originated from Sphenoid Sinus Case

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## ÖZET

Sfenoid kemik kaynaklı fibröz displazi olgusu

**Amaçlar:** Bu çalışmada sağ sfenoid kemik kaynaklı, sfenoid sinüs sağ yarısında obliterasyona ve sağ kavernöz sinüste daralmaya yol açan monostotik fibröz displazi olgusu radyolojik görüntüler eşliğinde sunuldu.

**Gereç ve Yöntem:** Paranasal sinüs tutulumu nadir olan bu fibroos-seöz yapıdaki monostotik fibröz displazinin özellikleri, tanı ve tedavisi güncel literatür eşliğinde tartışıldı.

**Bulgular:** Baş ağrısı ve postnazal akıntı şikayetleri olan ve fizik muayenesinde herhangi bir özellik saptanmayan 16 yaşında erkek hastanın çekilen paranasal sinüs BT ve MR'sinde: sfenoid kemik sağ yarısında ala minör ve anterior klinoid süreçte yerleşimli, kemik korteksinde destrüksiyon oluşturmaksızın ekspansiyona neden olan, yoğun kontrast tutulumu gösteren, sfenoid sinüs sağ yarısında obliterasyona ve sağ kavernöz sinüs anterior bölümünde daralmaya neden olan ekspansil karakterli kitlesel lezyon görüldü. Olgunun estetik veya fonksiyonel herhangi bir yakınması olmaması nedeniyle sık aralıklarla takibi yapıldı ve 6 ay sonra yapılan MR incelemesinde lezyonda progresyon saptanmadı.

**Sonuçlar:** Sfenoid kemik kaynaklı FD çok nadir görülmekle birlikte, uzun süre semptomatik olmayabilir ve fonksiyon kaybına neden olmayabilir. Bu gibi olgularda cerrahi tedavi için acele edilmemeli ve olgu sık aralıklarla lezyon bölgesinin görüntülenmesi ile takip edilmelidir.

**Anahtar kelimeler:** Sfenoid sinüs, fibröz displazi, başağrısı

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## ABSTRACT

Fibrous dysplasia originated from sphenoid sinus case

**Objectives:** In this article, monocytotic fibrous dysplasia (F.D.) originating from sphenoid bone and causing obstruction of sphenoid sinus and narrowing right cavernous sinus is presented with radiological imaging studies.

**Study Design and Methods:** Characteristics, diagnosis and treatment of monocytotic fibrous dysplasia which rarely originates from paranasal sinuses is discussed according to literatural studies.

**Results:** A 16 years old male patient is applied to clinic with headache and post nasal flow. On his paranasal sinus computerised tomography (C.T.) scan there was a mass at the right sphenoid sinus on alae minor and clinoid process making compression but no bone destruction. It was narrowing the right cavernous sinus and it was expansible. It is decided to follow up this mass because patient had no complaint but headache. On an magnetic resonance (M.R.) investigation after six month there was no progression at F.D.

**Conclusions:** F.D. originated from sphenoid bone is very rare and may be asymptomatic or didn't cause any function loss for along time. In such cases surgery must not be thought immediately and the lesion must be followed by radiological methods

**Key words:** Sphenoid sinus, fibrous dysplasia, headache

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## INTRODUCTION

Fibrous dysplasia (F.D.) is a slow process in which normal bone tissue changes to collagen, fibroblasts and different degrees of metaplasia (1). The fibrous dysplasia term is first used by Lichtenstein in 1938 (2). Craniofacial dysplasia is usually seen at maxilla

and mandible (1,3,4). It is rarely seen at paranasal sinuses. The most affected paranasal sinuses are maxillary sinuses and less often ethmoid sinuses. F.D. originated in paranasal sinus causes occlusion of the ostium and this may cause recurrent infections, mucocoele formation and according to the location of F.D. facial pain, visual disorder and epiphora can also be seen (5-7).

The progress is very slow and it takes years to be symptomatic. This local and destructive disorder can be seen with some endocrine abnormalities such as Albright's syndrome (precocious puberty, pigmented skin lesions and bone abnormalities) or it can occur as an isolated clinical situation (7). The incidence of

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Figure 4: View of F.D. originated from sphenoid bone on magnetic resonance axia scan.

for his sinusitis. After this treatment, his headache has been decreased. On a M.R. investigation after six month, there was no progression at F.D. The patient is still being followed by the clinic.

## DISCUSSION

F.D. usually occurs at the first two decades of life. It usually shows regression at puberty but may show a slow progress in adult life (12,13). F.D. locationing at paranasal sinuses is very rare and it is a subtype of craniofacial F.D. (14,15). Monocytotic F.D. is the most common type and it is approximately %80 of all cases. %20 of monocytotic F.D. occurs at head and neck region (16). F.D. unusually affects sphenoid sinus and at literatures there are only 4 cases reported (8,17). At craniofacial F.D., the displastic bone may compress the optical nevre or chiasma and this may cause sight disorders or intra lesioner hemorrhaghia (18).

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The diagnosis of F.D. can be made radiologically and approved histologically. At C.T. image the characteristic frosted glass image and no certain borders are typical. Fries (10) classified craniofacial F.D. radiologically as pagetoid, sclerotic and cystic like. Both at T1 and T2 secans of M.R. there is no significant signs for F.D. (19,20). Hystopathologically in fibroelastictroma C shaped abnormal trabecules are typical for F.D. (7). Radiotherapy is useless for F.D. because it is not effective and may cause a malign degeneration. There can be %0.5 malign degenerations without any other rik factors on F.D. cases. There is a known malign degeneration even 13 years after radiotherapy . The sarcomatous differantiation risk increases 400 times after radiotherapy (21).

Surgery is the best treatment for F.D. and it must be performed according to the symptoms and the size of lesion (14). At symptomatic cases a complet excision must be preferred; but only if there are multiple bones effected, it may not be preferred because of high risk of recurrence and morbidity. Only the cause of fuction loss or symptomatic lesion, it must be excised (22).

In this case there was no function loss or serious symptom; the progress of the lesion was very slow so we decided to follow it up. But at symptomatic patients, the surgery is always the first choice.

## CONCLUSION

F.D. originated from sphenoid bone is very rare and may be asymptomatic or didn't cause any function loss for along time. In such cases surgery must not be tough immediately and the lesion must be followed by radiological methods.

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