

## 진균구 60예의 임상적 분석

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## A Clinical Analysis of 60 Cases of Mycetoma

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## -ABSTRACT-

**Background and objectives** : The mycotic infections of the paranasal sinuses are relatively rare, but their incidence tend to increase with frequent use of antibiotics, anticancer drugs, steroids and radiation or prolonged survival of chronically debilitated patients. In this study, we aimed to investigate the clinical and radiological characteristics of mycetoma. **Materials and Methods** : We reviewed 60 patients with mycetoma diagnosed by clinical examination, nasal endoscopy and computerized tomography during past 8 years from January 1992 to December 1999. This review focused on the preoperative clinical complaints and radiologic findings. **Results** : There were 34 male and 26 female patients and the patients ranged in age from 15 to 70 years, with a mean of 47 years. The patients reported nasal obstruction (72%), purulent rhinorrhea (62%), and facial pain or headache (52%) at presentation. The radiologic findings were haziness, calcification and bone destruction of the involved sinus or sinuses. Preoperative computerized tomograms revealed mottled calcific densities within the involved sinuses in 55% of cases. **Conclusion** : Sixty cases of mycetoma were presented with respect to their clinical and radiologic features. Pertinent parameters of paranasal sinus fungal infection in adults which enhance the index of suspicion are chief complaints such as facial pain or headache and calcification on CT scan. (J Clinical Otolaryngol 2003;14:70-75)

**KEY WORDS** : Fungi · Sinusitis · Computed Tomogram.

## 서 론

가, 가  
가<sup>1-4)</sup>  
X -  
가  
Caldwell - Luc

: 2002 9 18

: 2003 3 6

: ,561 - 712

634 - 18

1999 12

1992 1

60

: (063) 250 - 1980 · : (063) 250 - 1986

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## 연구 대상 및 방법

1992 1 1999 12

60 (100%)  
 , 33 (55%)  
 가 (Fig. 1), 2 (3%)  
 , 34 (56%), 26 (43%)  
 1.3 , 15  
 70 47 , 40~49 17  
 (28%), 60 14 (23%) (Table 1).

## 결 과

### 증상 발현에서 내원까지의 기간

1 6 가 17 (28%) 가 , T2- 가  
 1 5 16 (27%) , 1  
 6 1 가 10 (16%)

### 증상 및 증후

43 (72%),  
 37 (62%), 31 (52%),  
 18 (30%) (Table 2).

### 유발 요인

60 2

**Table 1.** Age and sex distribution

Age	Male	Female	Total
- 29	4	1	5 ( 8%)
30 - 39	8	3	11 (18%)
40 - 49	7	10	17 (28%)
50 - 59	5	8	13 (22%)
60 -	10	4	14 (23%)
Total	34 (57%)	26 (43%)	60

### 방사선 검사소견

(100%)  
 , 33 (55%)  
 가 (Fig. 1), 2 (3%)  
 , 7 , 21 , 19 , ,  
 가 6  
 , 3 , 2 , 1 ,  
 1 . 4  
 (Table 3).  
 9  
 T1 - 가 ,  
 T2 - 가  
 (Fig. 2).

21 13 가

**Table 2.** Presenting symptoms of fungal sinusitis

Symptoms	No. of cases*
Nasal obstruction	43 (72%)
Purulent rhinorrhea	37 (62%)
Facial area pain & Headache	31 (52%)
Headache	22 (37%)
Cheek tenderness	5 ( 8%)
Toothache	2 ( 3%)
Facial pain	1
Eyeball pain	1
Postnasal drip	18 (30%)
Foul odor	9 (15%)
Hyposmia	3 ( 5%)
Anosmia	2 ( 3%)
Otagia	6 (10%)
Intermittent bloody discharge	1

\* : Numbers are not mutually exclusive

**Table 3.** Comparison of CT findings with surgical findings in the involvement of paranasal sinuses

Sinus abnormalities in CT findings	Fungal lesions in surgical findings
Maxillary (18)	Maxillary (18)
Maxillary+Ethmoid (22)	Maxillary (8)
	Maxillary+Ethmoid (14)
Ethmoid (3)	Ethmoid (3)
Maxillary+Ethmoid+Frontal (7)	Maxillary (5)
	Maxillary+Ethmoid+Frontal (2)
Ethmoid+Frontal (1)	Ethmoid+Frontal (1)
Ethmoid+Sphenoid (1)	Ethmoid+Sphenoid (1)
Pansinus (6)	Maxillary+Ethmoid+Frontal (1)
	Maxillary (5)
Sphenoid (2)	Sphenoid (2)

Figures in the parentheses indicate the number of cases



**Fig. 1.** Coronal CT scan showing total haziness with hyperattenuated lesion in left maxillary sinus.



**Fig. 2.** Axial T2-weighted MR image shows inflammatory disease with a high signal intensity in the left maxillary sinus. Centrally within the sinus is a region of both low signal intensity and signal void.

62% , 8  
 가 ,  
 7 2 ,  
 29%

5  
 6 5 ,  
 1 ,

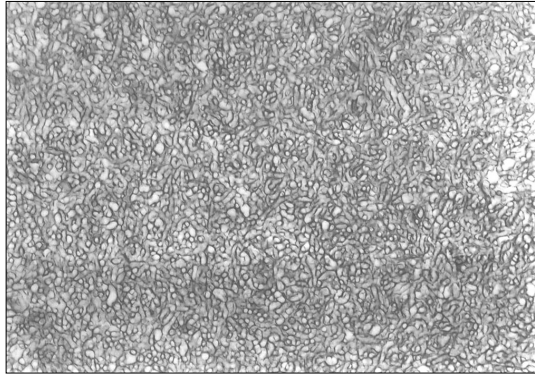


Fig. 3. Microscopic finding of Aspergillus sinusitis. The hyphae of fungus shows the acute-angled branching, septated, and smooth surfaced (Hematoxylin-Eosin stain, x 200).

병리 조직학적 소견

(aspergillosis) Hematoxylin - Eosin Aspergillus 45° (Fig. 3), PAS(periodic acid - Schiff) Gomori methenamine silver

치 료

30° back - biting 30° 70° (fungus ball),

결 과

2 38

12 . 59 , 1 8 가 ,

고 찰

, 1791 Plaignaud가 , 1885 Schubert가

가 , 가 가 1-4) 60 2

2)3)5) (aspergillosis), (candidiasis), (mucormycosis), (coccidiomycosis), (histoplasmosis) 가 .1) (allergic type), (noninvasive type or fungal ball), (invasive type), (fulminant type) 6)7) 60

, Charcot - Leyden 가 가

<sup>8)</sup> (aspergilloma) <sup>18)</sup>

<sup>9)</sup> 가

가

chloramphenicol Sabou-  
4% raud (commen-  
sal) 가

<sup>10)</sup> T - 가

<sup>1)2)11)12)</sup> 가 61 34 1.3  
47 40~49 가 Min,<sup>2)</sup> Lee,<sup>11)</sup>  
Kim<sup>13)</sup>

가

<sup>2)11)12)</sup> Caldwell - Luc

가 60 31 (52%)

(air - fluid level)가 <sup>14)15)</sup>

가

<sup>16 - 19)</sup> 33

(55%) 1992 1999 8 60  
, 2 (3%)

T1 -  
(signal intensity) , T2 -

<sup>18 - 20)</sup>  
(ferromagnetic element)

중심 단어 :

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