

## 경비 내시경 수술로 제거한 유년성 비인강혈관섬유종 3례

유 화 경<sup>1</sup> · 류 준 선<sup>2</sup>Three Cases of Juvenile Nasopharyngeal Angiofibroma  
Treated by Transnasal Endoscopic ApproachHwa-Kyung Yu, MD<sup>1</sup> and Jun-Sun Ryu, MD<sup>2</sup><sup>1</sup>Department of Otorhinolaryngology-Head and Neck Surgery, College of Medicine,  
University of Ulsan, Ulsan,<sup>2</sup>Department of Otorhinolaryngology-Head and Neck Surgery, College of Medicine,  
Dongguk University, Kyongju, Korea

## - ABSTRACT -

Juvenile nasopharyngeal angiofibroma (JNA) is a histologically benign but highly vascular, aggressively expansile lesion that occurs exclusively in prepubescent or pubescent males. Traditional treatment of huge JNA has included open surgical approaches for majority of tumors. Recent development in endoscopic approaches enabled surgeons to avoid complications and to reduce the morbidity following major operation. Preoperative embolization is useful for reducing intraoperative blood loss and the risk of incomplete excision of the tumors. This report describes three cases of JNA treated by transnasal endoscopic approach with or without preoperative embolization. The tumors were completely removed without complications, and there was no evidence of recurrence during 6 - 10 months of endoscopic follow-up. (*J Clinical Otolaryngol* 2001;12:104-109)

**KEY WORDS :** JNA · Transnasal endoscopic approach · Embolization.

## 서 론

(Juvenile nasopharyngeal  
angiofibroma) 0.05 0.5%

1)

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: 2001 5 23

: , 682 - 060

290 - 3

3

: (052) 250 - 7189 · : (052) 234 - 7182

E - mail : hkyoo@uuh.ulsan.kr

## 증례

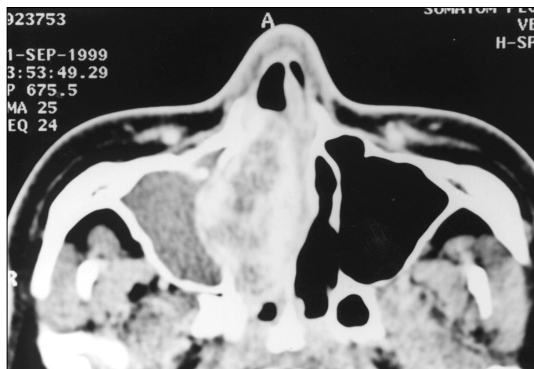
증례 1 :

27 1

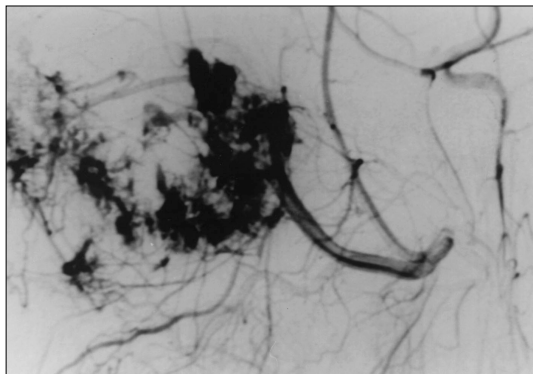
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4.5×4.0×2.0 cm

(Fig. 1).



**Fig. 1.** Axial contrast-enhanced CT scan shows a densely enhancing soft tissue mass in right nasal cavity (case 1).



**Fig. 2.** Right external carotid arteriogram, lateral view (case 1). The typical hypervascular tumor blush of the juvenile nasopharyngeal angiofibroma is shown.

(internal maxillary artery)

ticle

(Fig. 2).

PVA par -

palatine foramen)

en bloc

(Fig. 3).

4.5 x

4.0×2.0 cm

가

(Fig. 4).

2

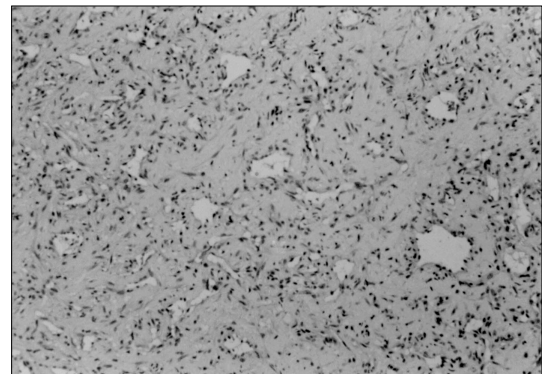
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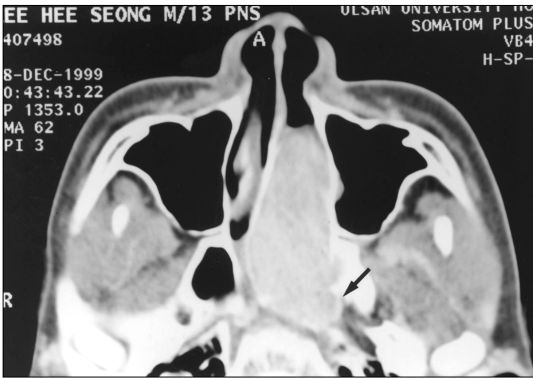
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**Fig. 3.** The surgical specimen (case 1).



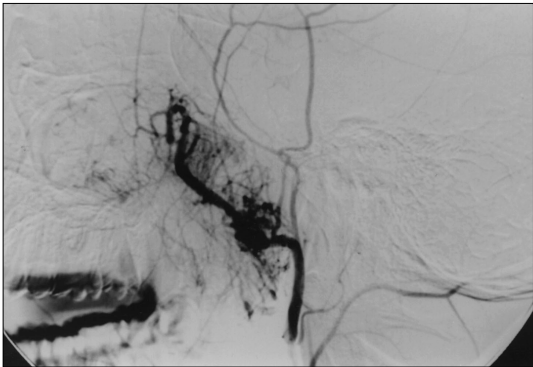
**Fig. 4.** Histopathologic finding shows a rich vascular network in a fibrous stroma (hematoxylin and eosin ; original magnification × 60) (case 1).



**Fig. 5.** Axial contrast-enhanced CT scan through the upper nasopharynx. A densely enhancing soft tissue mass is present within the posterior nares and pterygomaxillary fissure (black arrow) (case 2).



**Fig. 7.** Coronal contrast-enhanced CT scan (case 3). A well defined round lesion fills the nasal choana and sphenoid sinus.



**Fig. 6.** Left external carotid arteriogram, lateral view (case 2).

증례 2 :  
15 (Hb 7.7)  
가  
가  
6.5×4.0×3.5 cm 가  
,  
1/3 (Fig. 5).

PVA particle (Fig. 6),  
4.0×3.0 cm en bloc 6.5×  
가  
3 7 8  
증례 3 :  
12 3 , ,  
, 5  
3.0×2.0×  
1.0 cm en bloc  
surgicel 2

:

**Table 1.** Summary of patients

Case	Age	Sex	Presenting symptom	Site	Preoperative embolization	Size (cm)	Stage	Duration of follow-up (m)
1	27	M	Epistaxis	Right	+	4.5 × 4.0 × 2.0	IB	10
2	15	M	Anemia	Left	+	6.5 × 4.0 × 3.5	IIA	8
3	12	M	Nasal obstruction	Left	-	3.0 × 2.0 × 1.0	IA	6

**Table 2.** Staging systems for juvenile nasopharyngeal angiofibroma

IA : Tumor limited to posterior nares and/or nasopharyngeal vault.  
 IB : Tumor involving the posterior nares and/or nasopharyngeal vault with involvement of at least one paranasal sinus.  
 IIA : Minimal lateral extension into the pterygomaxillary fossa.  
 IIB : Full occupation of the pterygomaxillary fossa with or without superior erosion orbital bones.  
 IIC : Extension into the infratemporal fossa or extension posterior to the pterygoid plates.  
 III : Intracranial extension

4 . 6 (extranasopharyngeal 5-7)  
 angiofibroma)  
 Table 1 가  
 3  
 고 찰  
 sur -  
 gicel .  
 Sessions  
 , Table 2 8)  
 가  
 (posterolateral wall)  
 (spin -  
 dle - shaped cell) (fibrous st -  
 roma) 가  
 estrogen  
 가 estrogen  
 가 8)9)  
 가 10)  
 (palatine bone) ,  
 (vomer) (horizontal alar), (ptery -  
 goid process) (root)가 4) syndrome)  
 (pterygomaxillary fissure) , Stage IIIA IIIB  
 (pterygomaxillary fossa) 가 가 4)  
 (foramen lacerum)  
 (superior orbital fissure) , MRI  
 (cavernous sinus)

## 요약 및 결론

(fibrous dysplasia), (lymphoe -  
pithelioma), (rhabdomyosarcoma) <sup>11)</sup>

3 cm

가

en bloc

<sup>12)</sup>

20

가

(facial osteotomy)  
fixation)

(metal plate

중심 단어 :

<sup>13)</sup>

## REFERENCES

(tr -  
anspalatal approach), (transantral  
approach), (lateral rhinotomy)

(medial maxillectomy), (mid -  
facial degloving approach) 1 Le Fort

<sup>10)(14)(16)</sup>

(embolization)

<sup>10)(17)(18)</sup>

facial resection) (craniotomy)

가

<sup>10)</sup>

가

<sup>19)</sup>

가

<sup>20)</sup>

10 30%

가 가

<sup>10)(12)</sup>

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