

비내시경하 의인성 양측 뇌척수액 비루의 치료 1예

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A Case of Transnasal Endoscopic Repair of Iatrogenic
Bilateral Cerebrospinal Fluid (CSF) Rhinorrhea

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- ABSTRACT -

Cerebrospinal fluid (CSF) rhinorrhea results from a breakdown of dura that is supported structures of the skull base. CSF rhinorrhea usually occurs after head trauma or follows surgery for various inflammatory or tumorous disease at the anterior cranial base. Surgical repair is recommended for patents with CSF leaks that do not respond to conservative management. It was managed previously through the intracranial approach. However, it has been reported high morbidity and mortality. The nasal endoscope can be used to improve visualization of the leakage site and to facilitate free graft of flap placement. This method ensures a high rate of dural defect healing with minimal morbidity. The authors have experienced a case of iatrogenic bilateral CSF rhinorrhea from ethmoidal roof area, in which repaired successfully with muscle fascia, fibrin glue under nasal endoscopy. Therefore, we present this case with review of the literatures. (**J Clinical Otolaryngol 2001;12:110-113**)

KEY WORDS : Cerebrospinal fluid rhinorrhea · Nasal endoscopy.

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: 1
 (Agger nasi cells)
 (ethmoidal roof) 가
 : 2000 (Fig. 1).
 5 8 : 2000 5 10
 가 2000
 5 10 ,
 lyphilized dura

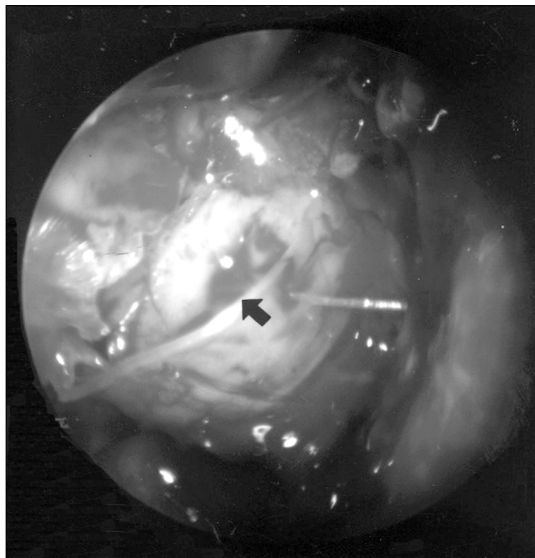


Fig. 1. Endoscopic view demonstrates dural defect (arrow) through the fovea ethmoidalis in the nasal cavity on the right side.

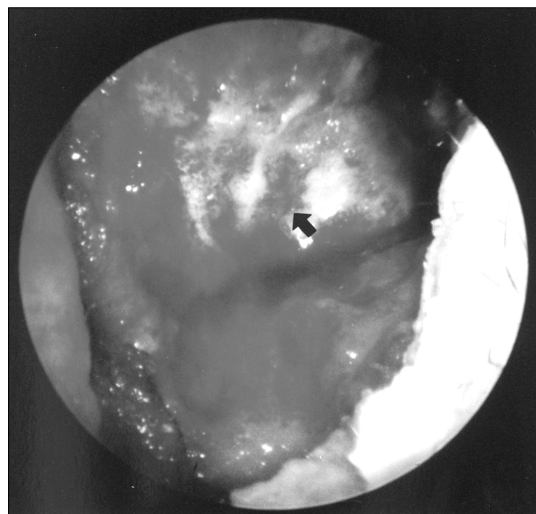


Fig. 2. The dural defect was repaired with lyodura dura, temporalis muscle fascia, fibrin glue (arrow).

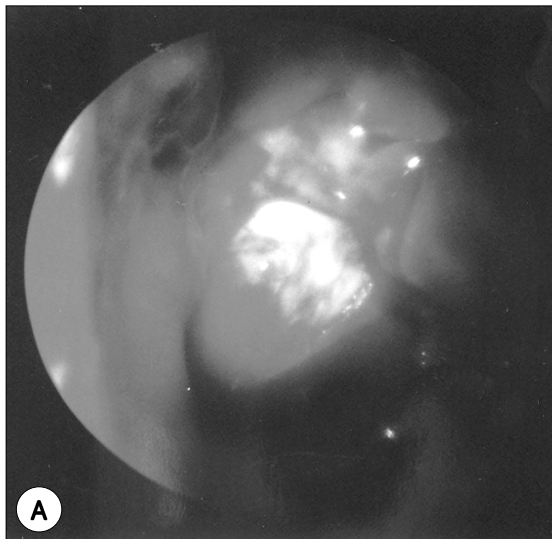
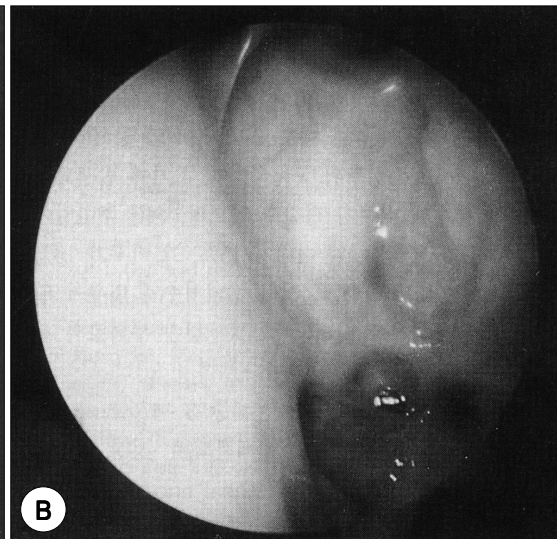


Fig. 3. Dural defect was well healed. A : After packing removal. B : After 2 months.



(Fig. 2).

fibrin glue
 Surgicel®, Gelfoam®, Meroce®
 2 5 7

(Fig. 3).

고찰

Ommaya³⁾ 80% 가
⁴⁾
 0.9%⁵⁾⁶⁾ 가
 2%,
 5% 가
 (Cribriform plate), (Posterior (Sella floor)
 wall of the frontal sinus),
 (Blood clot) (Bone) 가
 가
 가 55%, 가 15%, 가 10%¹²⁾
 20% 가
 , 가
⁷⁾
 3 4%
 (Nasal encephalocele),
 (Meningoencephalocele), Empty sella syn-

drome,
 (Crouzon's disease) (Albers-Schönberg disease)⁸⁾
 가 Valsalva 가가 가
 가
⁹⁾
 가 glucose oxidase test strip 가 가¹⁰⁾
¹¹⁾
 가
 0.07% 1.005 1.010
 2 - transferrin
 1.5 3.0 mm
 Metrizamide CT
 Fluorescein
 MRI
 가
¹³⁾

가 72

가

(pneumatocele)

1926 Dandy¹⁴⁾가
1940

hlman¹⁵⁾

pay¹⁶⁾

hlyp -
hilized dura, alcoholic proamine solution, fibrin
acrylate glues

가

17)

2

결 론

중심 단어 :

REFERENCES

- 1) Yoon JH, Lee JG, Park IY. *Surgical management of iatrogenic cerebrospinal fluid rhinorrhea. Korea J Otolaryngol* 1991;34:352-8.
- 2) Donson EE, Gross CW, Swerdloff JL, Gustafson LM. *Transnasal endoscopic repair of cerebrospinal fluid rhinorrhea and skull base defects: A review of twenty-nine cases. Otolaryngol Head Neck Surg* 1994;111 (5):600-5.
- 3) Ommaya AK. *Spinal fluid fistulae. Clin Neurosurg* 1976; 23:363-92.
- 4) Tolley NS, Brookes GB. *Surgical management of cerebrospinal fluid rhinorrhea. J R Coll Surg Edinb* 1992;37: 112-5.
- 5) May M, Levine HL, Mester SJ. *Complications of endoscopic sinus surgery analysis of 2108 patients-incidence and prevention. Laryngoscope* 1994;104:1080-3.
- 6) Maniglia AJ. *Fatal and other major complications secondary to nasal and sinus surgery. Laryngoscope* 1991;101: 349-54.
- 7) Loew F, Pertuiset B, Chaumier E. *Traumatic, spontaneous and postoperative CSF rhinorrhea. Adv Techn Standards Neurosurg* 1984;11:169-207.
- 8) Daly DT, Lydiatt WM, Ogren FP. *Extracranial approaches to the repair of cerebrospinal fluid rhinorrhea. Ear Nose Throat J* 1992;71:311-3.
- 9) Chandler TR. *Traumatic cerebrospinal fluid leakage. Otolaryngol Clin North Am* 1983;16:623-32.
- 10) Kirsch AP. *Diagnosis of cerebrospinal fluid rhinorrhea: Lack of specificity of the glucose-oxidase test tape. J Pediatr* 1967;71:718-9.
- 11) Katz R, Kaplan P. *Glucose oxidase sticks and cerebrospinal fluid rhinorrhea. Arch Phys Med Rehabil* 1985;66: 391-3.
- 12) Hingorani RK. *Cerebrospinal rhinorrhea. J Laryngol Otol* 1971;85:999-1006.
- 13) Lanza DC, O'Brien DA, Kennedy DW. *Endoscopic repair of cerebrospinal fluid fistulae and encephaloceles. Laryngoscope* 1996;106:1119-25.
- 14) Dandy WD. *Pneumocephalus (intracranial pneumocele or arocele). Arch Surg* 1926;12:949-82.
- 15) Dohlman G. *Spontaneous cerebrospinal rhinorrhea. Acta Otolaryngol[suppl] (stockh)* 1948;67:20-3.
- 16) Papay FA, Maggiano H, Dominquez S. *Rigid endoscopic repair of paranasal sinus cerebrospinal fluid fistulas. Laryngoscope* 1989;99:1195-201.
- 17) Mattox DE, Kennedy DW. *Endoscopic management of cerebrospinal fluid leaks and cephaloceles. Laryngoscope* 1990;100:857-62.