



63

-

가

1

(carotid - cavernous fistula)

(Fig. 1B),

(Fig. 1C).

(1).

가 가

가

(inferior pet -

rosal sinus)

(Fig. 1D).

(2, 3).

63

(MR angiography)

8Fr

(Goldvalve balloon #19, Ingenor, France)

(coaxial catheter)

가

(detachable bal -

1

(angiography)

1E).

(Fig.

loon)

63

가

1

(1).

(time of

flight MR angiography)

(Fig. 1A).

20~30% (4, 5).

¹가
²가

2004 1 10

2004 3 12

(6).

(2, 3).

(multicompartment)

가

(7, 9).

가

(pterygoid plexus)

(7, 8).

가

가

(3).

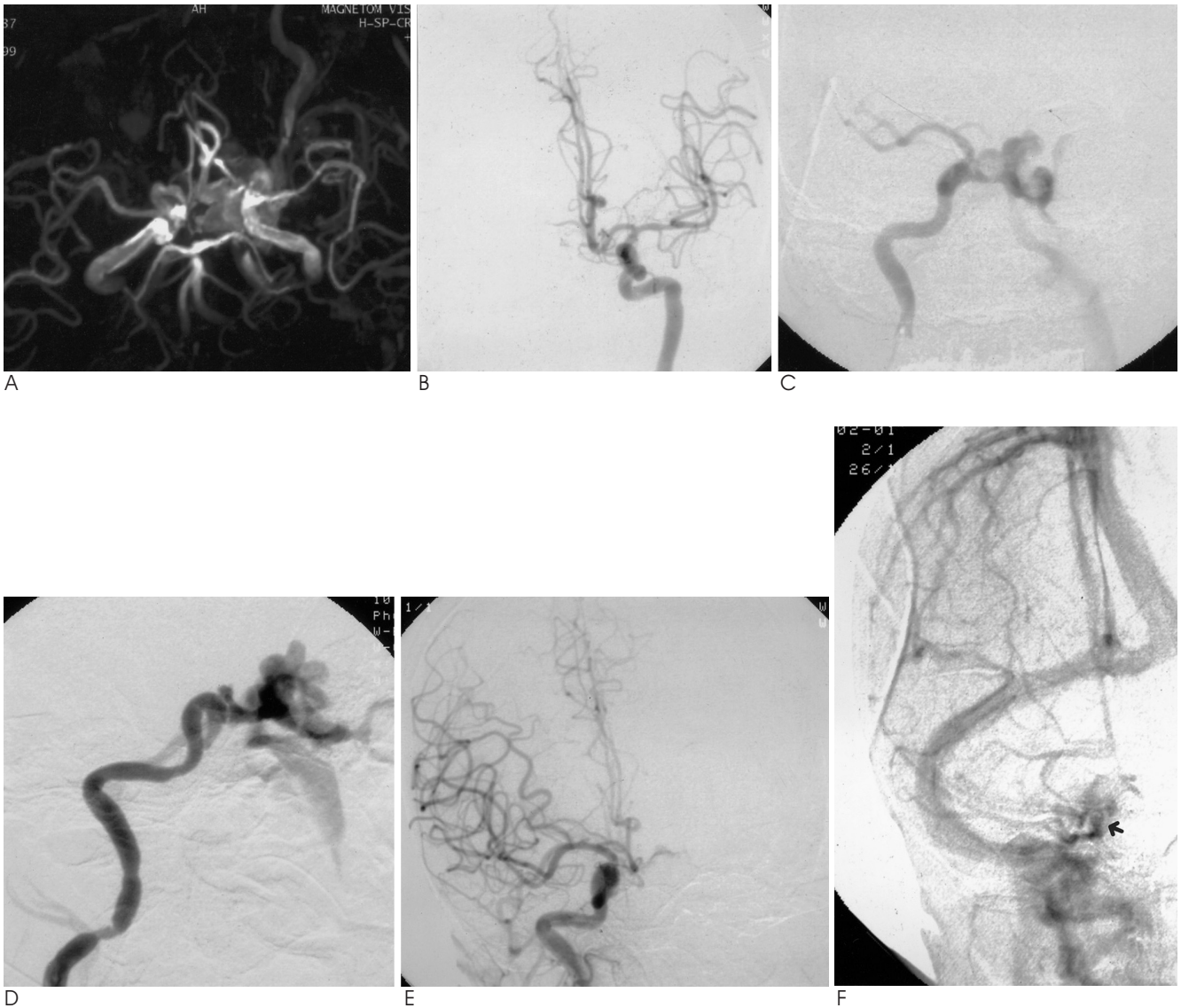


Fig. 1. A-E. TOF MR angiography (A) shows vascular flow signal in dilated left cavernous sinus and left superior ophthalmic vein. The right cavernous sinus is spared. Left internal carotid angiography (B) shows no abnormal arteriovenous fistula. Right internal carotid angiography (C) shows carotid-cavernous fistula with medially directed shunt flow draining into the left cavernous sinus and then to the left superior ophthalmic and inferior petrosal sinus. Right anterior oblique views of the right internal carotid angiography (D) show location of the fistula on superomedial aspect of the cavernous segment of right internal carotid artery. Most of the shunt flow is draining into the contralateral cavernous sinus. Control right internal carotid angiography (E, F) after endovascular occlusion of the fistula with detachable balloon, showing no abnormal arteriovenous shunt flow and normal contrast filling in the lateral compartment of right cavernous sinus (arrow) on the delay venous phase.

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(Fig. 1F).

(2, 10).

(intercavernous sinus)
 (tuberculum sella) 가 (diaphragm
 sella) 가
 (dorsum sella) 가
 (diaphragm sella)
 (sella floor) (11).

가

가

가,

(4, 11,

12).

(intervavernous region)

가

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Traumatic Carotid-cavernous Fistula with Contralateral Proptosis: Case Report¹

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Traumatic carotid-cavernous fistula frequently results in proptosis on the side of the fistula by retrograde drainage from the cavernous sinus to the superior ophthalmic vein. The involvement of the opposite orbit is due to the presence of connections between the cavernous sinuses on both sides, but exclusive contralateral orbit involvement is rare. We report a case in which the CCF with a contralateral proptosis developed in a 63 year-old man after a motor vehicle accident. MR angiography depicted the markedly dilated left cavernous sinus and left superior ophthalmic vein, sparing the right side. However, angiography showed a direct fistula between the right internal carotid artery and cavernous sinus with exclusive contralateral venous drainage via the intercavernous sinus. A detachable balloon was used to occlude the fistula, and the contralateral orbital symptom regressed.

Index words : Fistula, carotid-cavernous
Angiography
Magnetic resonance (MR), angiography

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