



Histoacryl

1

2

(1 - 5).

(Fig. 1A).

(Computed

Johnson (5)

tomography: CT)

가

10 cm

가

(Fig. 1B).

71

170/100 mmHg,  
8.0 g/dL

90

가

Histoacryl

1

(Common Femoral Vein)  
(Cook, Bloomington, U.S.A.)

5 - F

(Fig. 1C).

71

가

(PermCath Quinton, Mansfield, U.S.A.)

1

2

2007 10 4

2007 11 5

(Fig. 1D).  
 2.7 - F (Progreat Terumo, Tokyo, Japan)  
 10 mm 8 mm  
 (Tornado, Cook, Bloomington, U.S.A.) 10  
 0.5 ml N - butyl  
 cyanoacrylate (Histoacryl, Braun, Melsungen, Germany) 2

가  
 G). 2  
 가 CT  
 1H).

(Fig. 1E -  
 9.5 g/dL  
 (Fig.



A



B



C

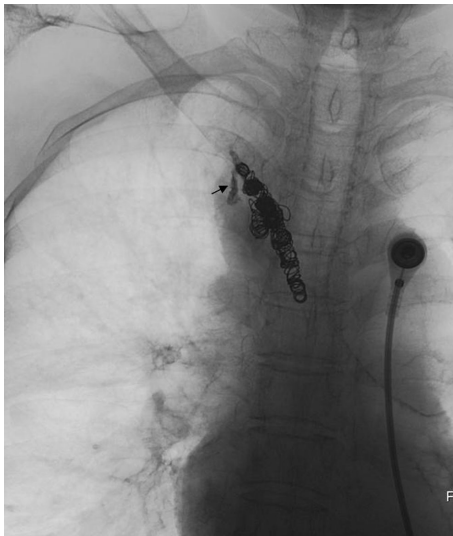


D



E

**Fig. 1.** A 71-year-old female with epigastric pain.  
**A.** Fistulography through the catheter shows contrast extravasation into the mediastinum (arrow).  
**B.** Non-enhanced CT scan shows the hemodialysis catheter (arrow) outside the superior vena cava and extravasated contrast material in the mediastinum (arrow head) on approximately 10 cm above the right atrium. Right hemithorax and mediastinal hematoma are also noted.  
**C.** Superior vena cavogram shows no demonstrable contrast extravasation.  
**D.** After retraction of hemodialysis catheter into the SVC, Cavogram demonstrates that hemodialysis catheter perforates the superior vena cava and extravasation of contrast material along the catheter tract into the mediastinum.  
**E.** The perforating tract of superior vena cava was embolized with microcoils. After microcoils embolization, extravasation of contrast material (arrow) was still seen.



F



**G**

**Fig. 1. F and G.** Additional embolization with N-butyl cyanoacrylate (arrow) was performed. Cavogram obtained after additional embolization reveals complete occlusion of perforated tract.

H. Non-enhanced CT scan obtained after post-operative 2 days shows accumulated N-butyl cyanoacrylate (arrow) and complete occlusion of perforated tract. A decreased amount of right hemothorax is noted.



H

1 가 , Morita (2) Florescu (1)  
(Internal Jugular Vein)

1

Trapease (Cordis, Florida, U.S.A.)

1 ,

Wall Stent (Boston Scientifics, Calway,

Ireland)

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1 (3 - 5).

가 가

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가

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(6).

(Torque)

1

가

(1, 6-8).

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가

,

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가

(Peel - away)

가

가

가

(Peel - away)

Peel - away

가

가

CT

가

, PermCath

N - butyl cyanoacrylate

, CT

N - butyl cyanoacrylate

가

:

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## **Endovascular Treatment of an Iatrogenic Superior Vena Cava Perforation Caused by the Placement of a Hemodialysis Catheter: A Case Report<sup>1</sup>**

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The perforation of the superior vena cava during the placement of a tunneled hemodialysis catheter, via the subclavian vein, is a rare complication, and is manifested by hemothorax or hemopericardium. The treatment of this complication requires an early diagnosis and open thoracic surgery. Herein, we report a patient with hemothorax due to the perforation of the superior vena cava during the placement of a tunneled hemodialysis catheter via the right subclavian vein which was successfully treated by embolization by way of a coil and histocryl.

**Index words :** Vena cava, superior  
Catheterization  
Embolization, therapeutic

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