

1

- (1). , , , III (antithrombin III) . (D - dimer) C
- (2). S (rheumatoid factor)), (fluorescent antinuclear antibody: FANA), (anti - cardiolipin antibody), (antiphospholipid antibody), (lupus anticoagulant antibody), V (Factor V) Leiden
- (3). 1

2

3.4 kg 40 3  
가 (Apgar) 1 8 , 5 9  
2 가 75 - 85  
가

4,000 1 12%  
(2).

(Diffusion weighted image, DWI)  
(MRI) (Fig. 1A - C).

가 가  
(4).

(MRA)

(Fig. 2).

(5).

(ductus venosus)

(Fig. 3A, B).

(CT),

(MRI)

가

(prothrombin time) 71%  
(aPTT), (fibrinogen),

가 (6).

가

2006 7 9

2006 12 14

가

가

(2). CT

가 . 가

MRI (7). MRI 가 C S

(myelination) CT MR

(pseudonormalization)가 10 2

5 1 T2

(8). CT

MRI 가 가 MRI

가

가 , ,

C S

24% 가 (9).

(10) (Fig. 4).

(portal sinus)

(ductus venosus)

(foramen ovale)

가

가

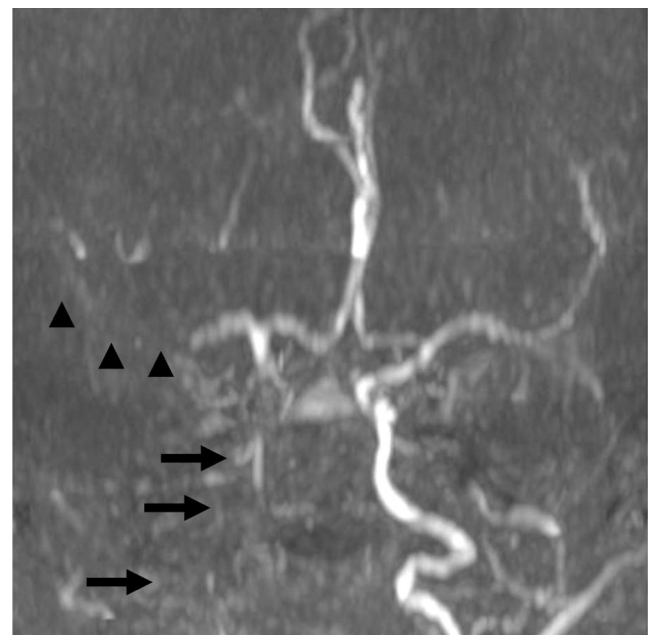


Fig. 2. The MRA using a time of flight sequence shows nonvisualization of right internal carotid artery (solid arrows) and right middle cerebral artery (arrowheads).

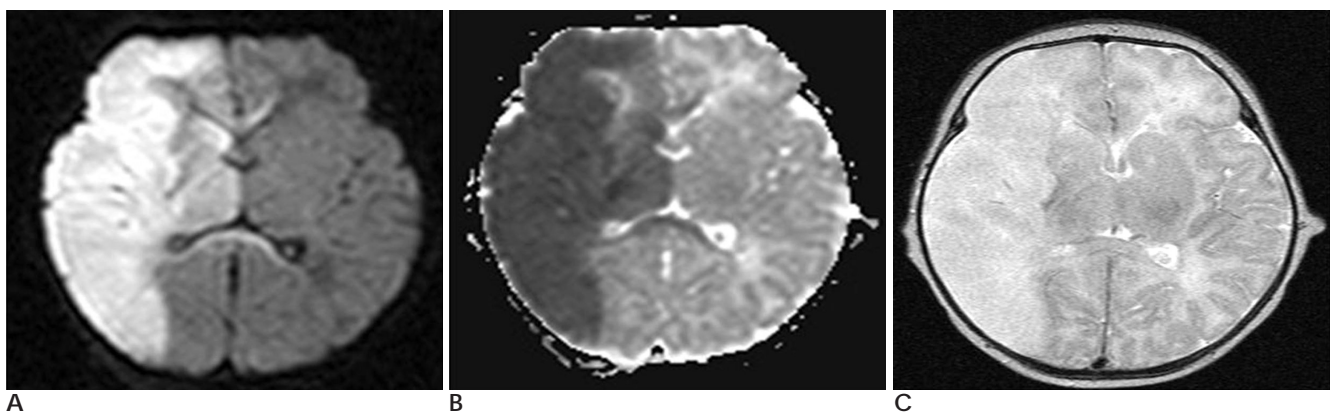
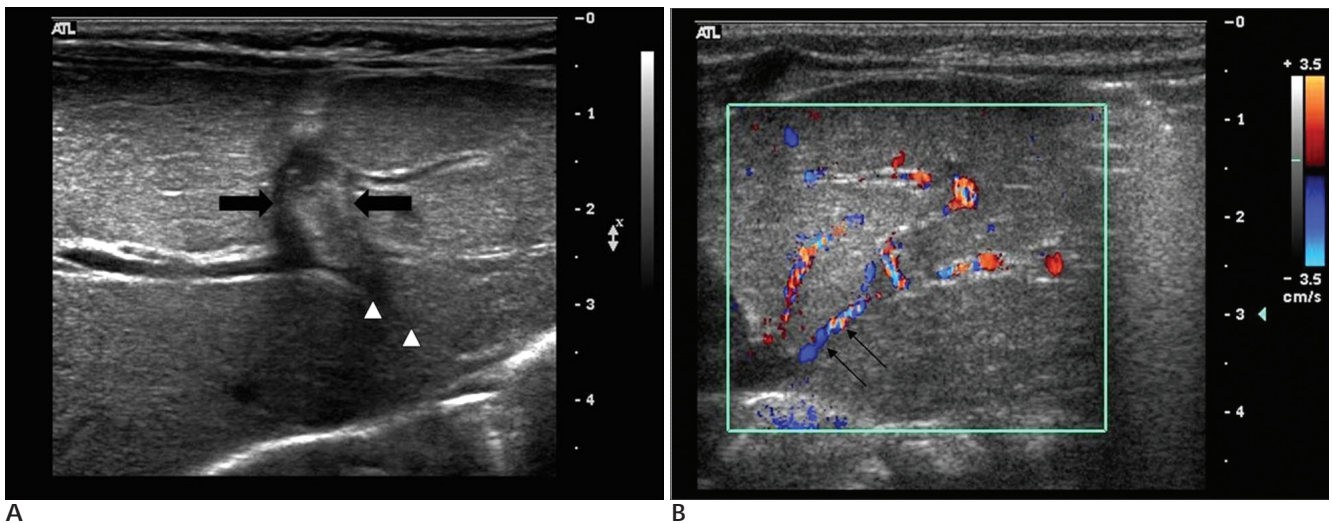
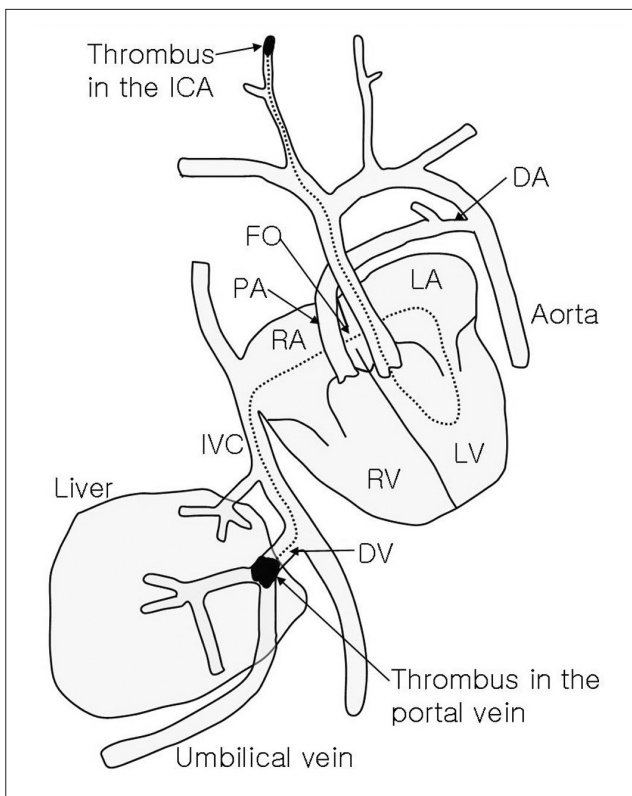


Fig. 1. Diffusion weighted image (A) and apparent diffusion coefficient map (B) clearly show a large area of restricted diffusion in the right middle cerebral artery territory. The T2-weighted image (C) shows cortical obscuration and mild hypertensity in the infarcted area.



**A**  
**Fig. 3. A.** Thrombus is seen in the left portal vein (solid arrows). Collapsed ductus venosus (arrowheads) is seen between the portal vein and inferior vena cava.  
**B.** Color flow image shows hepatofetal flow in the ductus venosus (arrows) indicating partial patency.



**Fig. 4.** Fetal circulation could explain cerebral infarction caused by thrombosis in the portal vein as shown by dotted line (modified from ref. 3). DA, ductus arteriosus; DV, ductus venosus; FO, foramen ovale; RA, right atrium; RV, right ventricle; LA, left atrium; LV, left ventricle; PA, pulmonary artery; IVC, inferior vena cava; ICA, internal carotid artery.

가 MRI

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## **Radiologic Findings of Neonatal Cerebral Infarction related with Portal Vein Thrombosis: Case Report<sup>1</sup>**

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A cerebral infarction in a newborn infant is not uncommon and is major cause of neonatal seizure. The author encountered one case of cerebral infarction that was assumed to be related to a portal vein thrombosis, and reports the radiology findings of a neonatal cerebral infarction and portal vein thrombosis.

**Index words :** Thrombosis

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Brain, Infarction

Infants, newborn, cardiovascular system

Veins, thrombosis

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