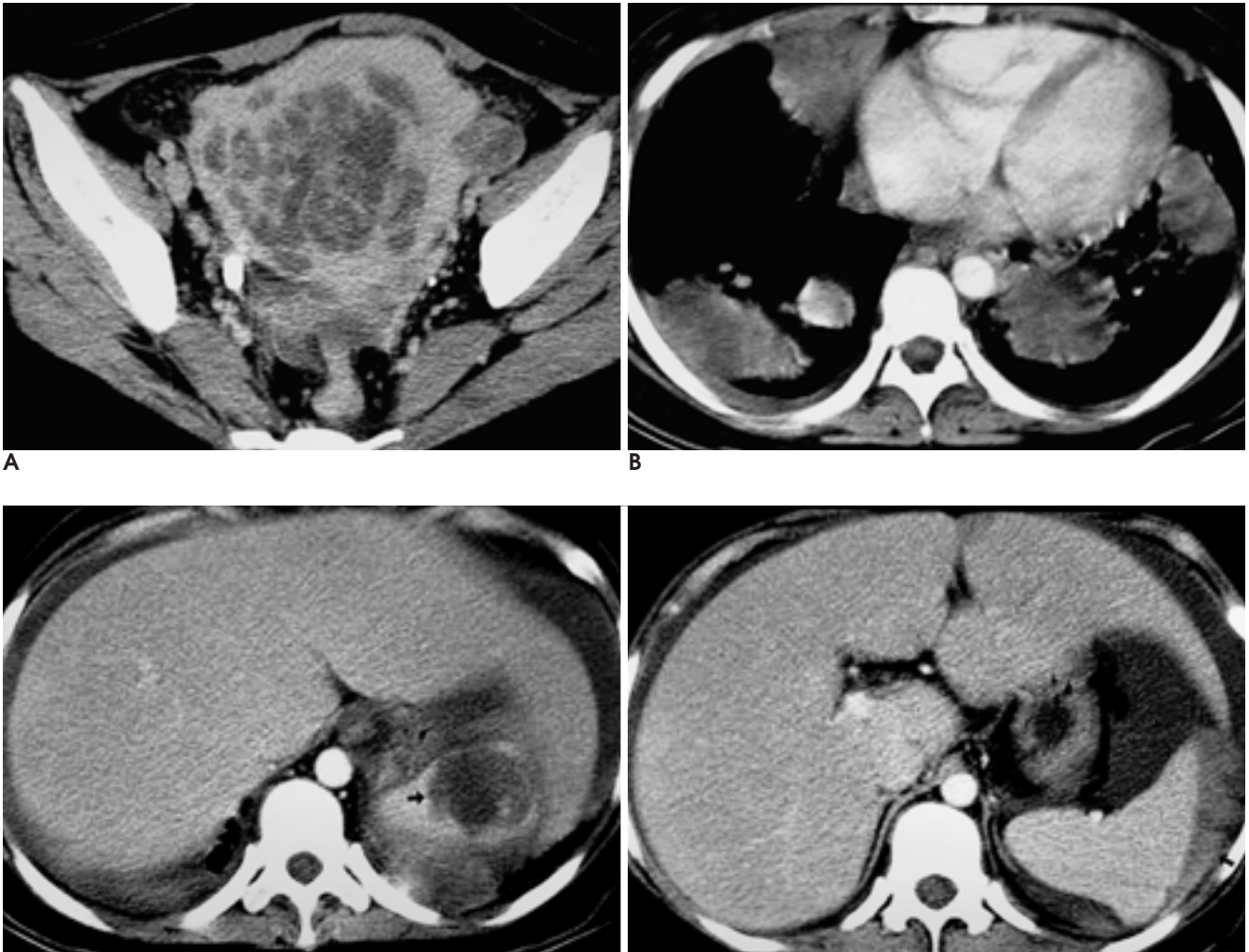


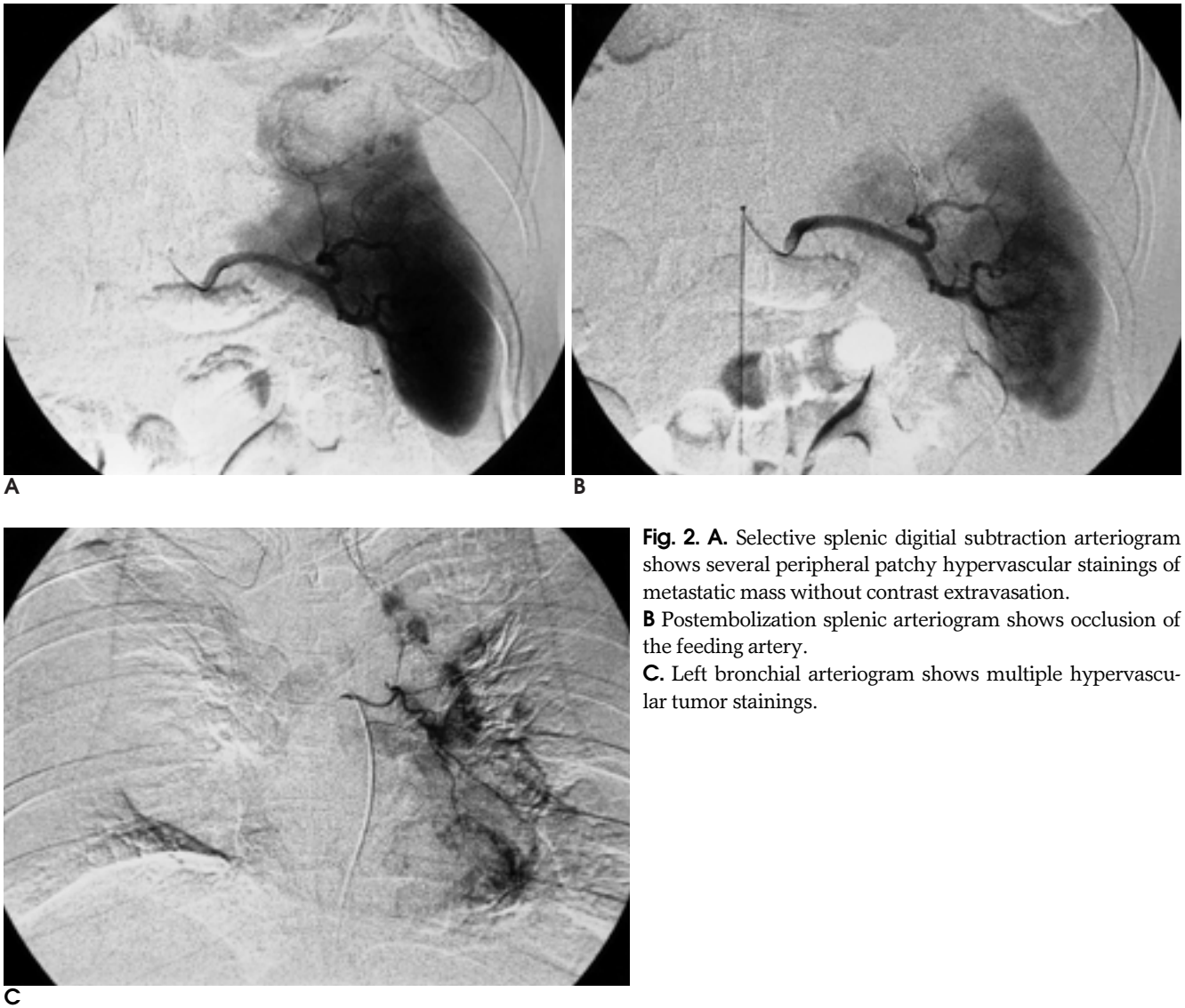
가 , 가  
가 ,  
가 .  
1 .  
1C, D).  
(1).  
가  
(2). (Fig. 2A).  
1 가  
3 mm,  
2 cm (Tornado embolization microcoil,  
Cook, Bloomington, U.S.A.)  
(Fig. 2B).  
가  
19 가  
/ 80/40 mmHg  
110 . 5  
(Fig. 2C).  
IU/mL 가 , -hCG가 70,000 . 6  
(Fig. 1A,  
B). 가 7 , 1  
100 cc ,  
가  
가 (50%), (25%),  
(25%) (3).  
(25%), (94%), (44%), (28%), (28%),  
(20%) (4).  
가 4  
-hCG > 40,000 mIU/mL

1  
2  
2002 6 24 2002 8 22  
65

-hCG >100,000  
 methotrexate  
 actinomycin D  
 100%  
 (1).  
 60 - 90%  
 (2).  
 (6).  
 (vasa vasorum)  
 (internal elastic lamina)  
 (7). (8)  
 Vujic (9)



**Fig. 1. A.** Initial CT scan of the pelvis demonstrates a large and heterogenous mass within the pelvic cavity.  
**B.** CT scan of the chest demonstrates multiple metastatic masses of both lungs.  
**C, D.** After 5 months, Enhanced CT scan of abdomen shows a poorly marginated, predominantly hypodense mass (arrow) at the upper portion of the spleen and hyperdense fluid accumulation around the spleen (arrows).



**Fig. 2.** **A.** Selective splenic digital subtraction arteriogram shows several peripheral patchy hypervascular stainings of metastatic mass without contrast extravasation. **B** Postembolization splenic arteriogram shows occlusion of the feeding artery. **C.** Left bronchial arteriogram shows multiple hypervascular tumor stainings.

1. Blaustein A. *Pathology of the female genital tract*, 2nd ed New York: springer-Verlag, 1982:791-803
2. Takemura M, Yamasaki M, Tanaka F, et al. Transcatheter arterial embolization in the management of gynecological neoplasms. *Gynecol Oncol* 1989;34:38-42

3. Ishizuka T, Tomoda Y, Kaseki S, Goto S, Hara T, Kobayashi T. Intracranial metastasis of choriocarcinoma. A clinicopathologic study. *Cancer* 1983;52:1896-1903
4. Weir B, MacDonald N, Mielke B. Intracranial vascular complications of choriocarcinoma. *Neurosurgery* 1978;2:138-142
5. Lurain JR, Brewer JI, Torok EE, Halpern B. Gestational trophoblastic disease: treatment results at the Brewer Trophoblastic Disease Center. *Obstet Gynecol* 1982;60(3): 354-360
6. Vujic I, Stanley JH, Gobien RP, Bruce RJ, Lutz MH. Embolic management of rare hemorrhagic gynecologic and obstetrical conditions. *Cardiovasc Intervent Radiol* 1986;9(2):69-74
7. Toyama K, Tanaka T, Hirota T, Misu N, Mizuno K. A case report of neoplastic aneurysm due to metastatic choriocarcinoma. *No Shinkei Geka* 1986;14:385-390
8. Yang DM, Yoon MH, Kim HS, Shin DB. Intrarenal pseudoaneurysm complicating renal choriocarcinoma metastasis: treatment with coil embolization. *Clin Imaging* 2000;24:217-220
9. Vujic I, Lutz MH, Curry N, Weinstein VJ. Angiographic management of bleeding in gestational trophoblastic malignancy. *Am J Obstet Gynecol* 1984;149:90-92

100cc  
가

## Hemoptysis and Hemoperitoneum due to Metastatic Gestational Choriocarcinoma: Bronchial Artery Embolization and Superselective Splenic Artery Embolization: A Case Report<sup>1</sup>

Tae Beom Shin, M.D., Chang Kyu Seong, M.D.<sup>2</sup>, Byung Ho Park, M.D., Seong Kuk Yoon, M.D.,  
Chan Sung Kim, M.D., Jin Hwa Lee, M.D., Jong Young Oh, M.D.,  
Yong Joo Kim, M.D.<sup>2</sup>, Young Hwan Kim, M.D.<sup>2</sup>

<sup>1</sup>Department of Diagnostic Radiology, Dong-A University School of Medicine

<sup>2</sup>Department of Diagnostic Radiology, Kyungpook National University School of Medicine

Gestational choriocarcinoma is easily disseminated hematogenously and its hypervascular nature places the patient at risk of significant hemorrhage both at the sites of metastatic lesions and in the uterus. In addition, it tends to give rise to pseudoaneurysm formation. Treatment of the condition by percutaneous embolization has been reported in several published articles, and hemoperitoneum secondary to rupture of splenic metastasis of gestational choriocarcinoma has also been reported, as has angiographic embolization. Hemoptysis resulting from pulmonary metastasis and treatment by means of embolization of the bronchial artery have not been reported, however. In this article, we describe a case of hemoptysis and hemoperitoneum due to pulmonary and splenic metastasis of gestational choriocarcinoma. Treatment of the condition involved embolization of the bronchial artery and superselective embolization of the splenic artery.

**Index words :** Uterine neoplasms, angiography  
Uterine neoplasms, CT  
Genitourinary system, interventional procedure  
Spleen, neoplasms

Address reprint requests to : Tae Beom Shin, M.D., Department of Diagnostic Radiology, Dong-A University School of Medicine  
1, 3-ga, Dongdaesin-dong, Seo-gu, Pusan 602-103, Korea.  
Tel. 82-51-240-5371 Fax. 82-51-240-5397 E-mail: tbshinkr@yahoo.co.kr