



1

2 2 2 2 3 4

:

21 (25~62 , 42 )

가 20 , 가 1

Polyvinyl alcohol Gelfoam

: 19

가 17 (89.5%)

가

58.5%가

17 (89.5%)

(26.3%), (23.8%)

:

가

가

21

(n=21),

(n=2)

(1).

가

6

가 가

가 가

가

(1, 2).

5

10

1

(3, 4).

1 2가

, 1

19

(5-9).

1

21

20

1

13

가 9

가 (

) 6

가 1

20

, 1

1998 5 9

1  
2  
3  
4

1999 1 5

1999 6 23

(Terumo, Tokyo, Japan)

4F Glide cobra catheter

21  
 (Tracker 325, Boston Scientific, Watertown, MA, U.S.A.)  
 polyvinyl alcohol (Contour, Boston Scientific, Watertown, U.S.A.) 350-500  $\mu$ m 500-700  $\mu$ m 14 , gelfoam (Spongostan, Johnson & Johnson, Gargrave, U.K.) 2 ,  
 5 가  
 gelfoam , 가 19  
 2 1  
 polyvinylalcohol gelfoam

1 30  
 15  
 30  
 21  
 가 가 2  
 가 , 1 가  
 2 3

(Fig. 1).

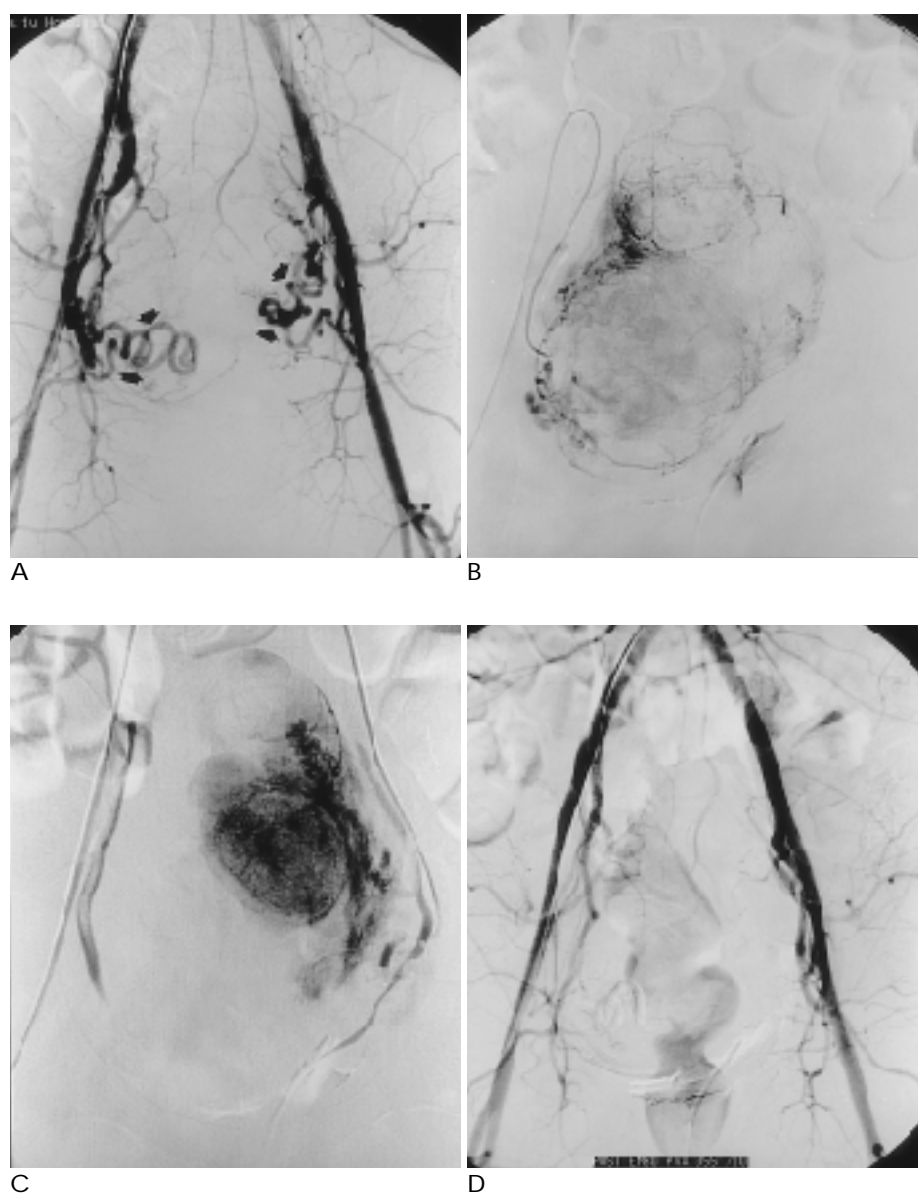


Fig. 1. A. Mapping arteriographic image obtained after aortic injection of contrast shows bilaterally enlarged and tortuous uterine arteries (arrows)  
 B. Arteriographic image obtained after selective injection of contrast into right uterine artery shows multiple hyper-vascular uterine masses.  
 C. Arteriographic image obtained after selective injection of contrast into left uterine artery shows multiple hyper-vascular uterine masses.  
 D. Postembolization angiographic image shows no visible flow into either uterine artery.

2-3 3-30 ( )

3 9.0 )

21 2 가 , 19  
50 232 124.5  
19 17 (89.5%)  
가  
3 50 가 (3,  
가 19 4,10-12). Ravina (6) 31  
17 (89.5%) 가 16  
2 1 가 16 2  
(6).  
Ravina  
13 11 (84.6%)  
9 8 (88.9%) (6). 21  
6  
4 (75.0%)  
3 14 가  
27.8% 100%  
58.5% (Table).  
3 5 PVA gelfoam, 가 , thrombin s-  
stainless steel pellets, metal fillings, silicone , metal coil, polyvinyl  
alcohol (PVA) (12),  
PVA gelfoam , 2  
3 cefotaxime Ravina PVA , gelfoam  
(6,7) Worthington-Kirsch (14)  
21 가  
1-2 가  
1-20 ( 4.7 ) 20  
19 5 (89.5%)

Table 1. Changes in Myoma Volume at US

Patient No.	Myoma volume (cm3)	3months later after procedure	Percent of reduction(%)
1	257.5	129.6	49.7
2	56.7	2.1	99.6
3	37.8	19.2	49.4
5	56.4	35.6	37.8
6	35.6	12.8	64.1
7	32.2	16.2	49.7
10	41.5	30.0	27.8
11	38.2	24.8	35.1
12	52.8	29.4	44.3
14	24.0	0.0	100.0
16	42.4	12.8	70.8
18	51.6	0.0	100.0
20	172.8	80.7	53.5
21	124.3	64.9	47.7

(13,14).  
21 19 3 가  
19 17  
(89.5%)  
3 50  
(11).  
19 17  
(89.5%) 가  
(84.6%)  
(89.9%) 75% 가  
Worthington-Kirsch (14)

53, 88%, 94%, 58.5%, 가, 가, Ravina (9) 16, 3, Worthington-3, 20% 80%, Kirsch (14) 53, 46%, 가, 5, 3, 가, 3, Stancato-Pasik (10) 1-6, gelfoam, 3, McLvor (11) 7, PVA, coil, gelfoam, 3, 가, (adenomyosis), 6, 4 (66.7%), 가, 가가

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## **Uterine Arterial Embolization for Uterine Leiomyoma : Efficacy and Clinical Outcome<sup>1</sup>**

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**Purpose :** To determine the efficacy and clinical outcome of uterine arterial embolization as a new approach to the management of uterine leiomyomas

**Materials and Methods :** Uterine arterial embolization was performed in 21 patients aged 26-62(mean, 42) years. Twenty of these had menorrhagia, dysmenorrhea, and mass-related symptoms (low abdominal discomfort, backache, urinary frequency, etc.) and one was diagnosed incidentally. Bilateral uterine arteries were selected individually and polyvinyl alcohol and/or gelfoam was used as an embolic material.

**Results :** Nineteen patients were followed up after embolization. Seventeen (89.5 %) reported satisfactory improvement of symptoms and follow-up sonography three months later showed a 58.5 % reduction in mean myoma volume. In 17 patients (89.5 %), the menstrual cycle returned to normal. All patients experienced pain after the procedure and other complications were vaginal bleeding (26.3 %) and fever (23.8 %).

**Conclusion :** Uterine arterial embolization represents a new approach to the management of uterine leiomyoma-related symptoms. Further investigations and long-term follow-up are, however, required.

**Index words :** Uterine neoplasms, CT  
Uterine neoplasms, therapy  
Arteries, therapeutic blockade

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