Anomalous ovarian artery vascularisation of a large uterine fibroid: successful embolisation

Pascale Riu,¹ Cristina Vallone,² Giuliano Rigon,² Fabrizio Signore²

¹Department of Obstetrics and Gynaecology, Hospital San Camillo-Forlanini, Rome, Italy
²Interventional Radiology Service, Hospital San Camillo-Forlanini, Rome, Italy

Correspondence to
 Dr Fabrizio Signore,
 fsignore@scamilloforlanini.rm.it

DESCRIPTION

Successful embolisation of an abnormal ovarian artery (OAE) feeding a fundal uterine fibroid is rarely reported.

A 50-year-old woman presented with vaginal bleeding and anaemia. Ultrasound and MRI showed a single large fundal subserosal fibroid. CA 19.9, CEA, CA 125 and LDH were normal. Aortic angiography showed an exclusive supply to a leiomyoma from a hypertrophic right ovarian artery. No feeding from the uterine artery was observed. A microcatheter was inserted to the mid-third of the ovarian artery. Tris-acryl gelatin microspheres, 700–900 µm (embosphere microsphere) were injected until near-stasis was achieved. A bilateral uterine angiogram confirmed no additional vascular supply to the leiomyoma (figure 1). The fibroid volume decreased by 30%, according to MRI over 3 months. Fibroids usually derive their blood supply from the uterine artery, but vascularisation from the ovarian artery is possible.¹ Blood supply to uterine fibroids can also originate from an aortoiliac haemorrhoidal artery or from distal branches of the

inferior mesenteric. Uterine artery embolisation (UAE) is a widely accepted treatment for uterine fibroids and ovarian function seems to be unaffected by the procedure.² Compared with UAE alone, the addition of OAE to UAE neither appear to precipitate the onset of menopause nor increase menopausal symptom severity.³ The predominant flow to the peri-fibroid plexus can possibly lead to a targeted embolisation, avoiding damage to the ovary using larger particles (700–900 embospheres).

Learning points

- ▶ Large fundal uterine fibroids can have an exclusive ovarian artery supply.
- ▶ An isolated ovarian artery embolisation (OAE) can be successful with no need to repeat procedures or necessity of an associated uterine artery embolisation.
- ▶ In our case, ovarian function was preserved after exclusive OAE.

Figure 1 Panel 1: fibroid supply from the ovarian artery; Panel 2: uterine bleeding; Panel 3: no left uterine artery supply; Panel 4: no right uterine artery supply.

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REFERENCES

- 1 Razavi MK, Wolanske KA, Hwang GL, et al. Angiographic classification of ovarian artery-to-uterine artery anastomoses: initial observations in uterine fibroid embolization. *Radiology* 2002;224:707–12.
- 2 Kim HS, Paxton BE, Lee JM. Long-term efficacy and safety of uterine artery embolization in young patients with and without uteroovarian anastomoses. *J Vasc Interv Radiol* 2008;19:195–200.
- 3 Scheurig-Muenkler C, Poellinger A, Wagner M, et al. Ovarian artery embolization in patients with collateral supply to symptomatic uterine leiomyomata. *Cardiovasc Interv Radiol* 2011;34:1199–207.

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