

SOFT-TISSUE CASE 36. DIAGNOSIS

ISCHEMIC NECROSIS OF A LARGE UTERINE FIBROID AFTER EMBOLIZATION

According to a recent survey, 4165 uterine artery embolization (UAE) procedures had been performed in the United States and Canada as of September 1999. This survey was conducted in preparation for an FDA Obstetrics and Gynaecology Devices panel meeting, which discussed the clinical study requirements for new nonextirpative methods of treating uterine fibroids, including UAE. The respondents reported that of the 4165 UAE procedures there were 25 complications resulting in additional surgery within 30 days of the procedure (less than 1%); there were no deaths.¹

UAE for treatment of symptomatic fibroids, was first reported in 1995 by Ravina and associates,² and the first North American report, by Goodwin and colleagues, appeared in 1997.³ Since these initial reports, interest has increased exponentially; over 50 articles pertaining to this topic have been published in the last 18 months.

For a qualified interventional radi-

ologist with embolization experience, uterine fibroid embolization is a relatively simple, straightforward technique. Technical success rates range from 95% to 98%, and success is defined as successful bilateral UAE. Intraoperatively, complications are quite rare. Procedural times vary from 40 minutes to 150 minutes (average 70 to 75 minutes).

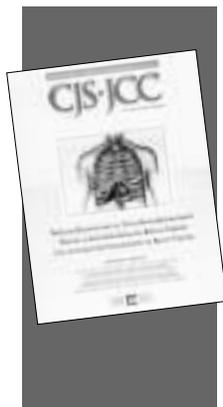
Almost every patient experiences pain after UAE. Typically, this begins near the end of the embolization or shortly thereafter. The pain is a heavy, "menstrual," crampy pain. It usually lasts 2 to 3 hours, plateaus over the next 6 to 8 hours, then begins to lessen with significant improvement by the following morning. Over the next several days, the pain continues to lessen. Roughly 90% of patients are at their normal activity level at 4 days and the rest achieve normal activity within 2 weeks.

Post-embolization pain syndrome is common and should be carefully monitored to differentiate it from infection. In this case the images (Figs. 1 to 3, page 410) show the normal ischemic necrosis that takes place in a large fibroid after embolization. To

the inexperienced observer, the mass on the plain film and the specks of gas bubbles on the ultrasonogram and CT scan mimic a large abscess. Physicians should be aware of this normal post-embolization "picture." The normal post-embolization necrosis syndrome mimics sepsis (elevated leukocyte count and body temperature); a patient who returns to hospital after embolization should be carefully monitored with appropriate testing for infection (blood cultures, urinalysis).

References

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Centre des services aux membres de l'AMC

1867, prom. Alta Vista
Ottawa ON K1G 3Y6
tél 888 855-2555 ou 613 731-8610 x2307
fax 613 236-8864

