Editorial

Uterine artery embolisation: challenges and opportunities in cross-specialty care

Women with symptomatic uterine fibroids have an increasing number of treatment options available, from medical management through minimally invasive procedures to major surgery. Over the past two decades, laparoscopic and hysteroscopic surgery, endometrial ablation, uterine artery embolisation, magnetic resonance guided focussed ultrasound, radiofrequency ablation, microwave ablation and cryoablation of fibroids have been added to the traditional options of hysterectomy and open myomectomy. Maintaining a level of knowledge of all the options available, so that patients can be taken through an informed consent process, is challenging at the very least.

In this issue, Liang et al. publish the first data on Australasian patients undergoing uterine artery embolisation (UAE or ‘fibroid embolisation’). Although, as the authors recognise, their method for measuring patient outcome by consensus assessment is subjective, their results are consistent with the large body of work published on fibroid embolisation over the past two decades. The majority of their patients had a significant improvement in menorrhagia (96%) and dysmenorrhoea (75%), with 50% of patients noticing a significant improvement in urinary symptoms. The 100% secondary success in patients with adenomyosis is better than that previously reported, with most centres showing a response rate in the region of 70–75%. However, only 37% of the overall patient cohort had follow-up to 2 years, with the follow-up period for the adenomyosis subgroup not reported separately. This, along with the small patient number, might account for their findings.

As might be expected, these results confirm that fibroid embolisation is a safe and effective treatment when performed by appropriately trained physicians. Statements from relevant clinical bodies including the Australian and New Zealand College of Obstetricians and Gynaecologists, The Royal College of Obstetricians and Gynaecologists, and the American College of Obstetricians and Gynaecologists advise on the incorporation of UAE into the treatment algorithm for women with symptomatic uterine fibroids.

A previous review in this journal discussed the place of fibroid embolisation in the management of uterine fibroids, and further studies have clarified appropriate criteria for patient selection. These indicate that embolisation can be considered in women with larger fibroids (>10 cm) with similar outcomes to patients with smaller fibroids, although reduction in fibroid size may be less. Similarly, patients with pedunculated and subserosal fibroids can be safely embolised but should be considered alongside the options of hysteroscopic or laparoscopic resection.

Research into fibroid embolisation has also resulted in the development of a disease-specific quality of life questionnaire (UFS-QOL) to better assess outcome of treatments for symptomatic fibroids. Recently, this has provided excellent insight into how treatment choice affects symptom severity, energy and mood and sexual function a year after treatment in patients undergoing embolisation, myomectomy or hysterectomy compared with normal controls. All treatments resulted in significant symptomatic relief, with women undergoing hysterectomy gaining the greatest improvement at 12 months as might be expected with complete removal of the uterus.

Work is ongoing to assess the impact of fibroid embolisation on women wishing to preserve fertility. Mara’s small randomised study showed a trend towards better outcomes with myomectomy but was not powered statistically to show a significant difference. Consensus guidelines based on the current, albeit limited, literature recommend myomectomy as the uterine preserving treatment of choice where there is an acceptably low risk of proceeding to hysterectomy. A multicentre randomised trial comparing fibroid embolisation with myomectomy, the FEMME study, is currently underway in women who wish to maintain their fertility. The results of this study will hopefully provide clearer guidance for patients wanting to become pregnant.

At some point, a procedure is no longer a ‘new’ treatment. The stage at which this transition occurs depends on many factors but importantly requires the integration of the procedure into standard treatment algorithms presented to patients, not just in academic centres but in general clinical practice. Fibroid embolisation, performed by Interventional Radiologists (IR), poses a number of challenges with IR practices typically based at tertiary hospitals. This usually requires patients to be seen in separate clinic appointments by gynaecology and interventional radiology.

Knowledge of fibroid embolisation availability and referral pathways can also provide challenges, with only a small number of IR practices offering regular outpatient clinics. Both Liang and Hickey have emphasised the importance of collaborative care in managing patients considering fibroid embolisation, but there have been few studies looking at how joint care might be best facilitated.
Hickey noted in 2008 that fibroid embolisation might not be routinely offered or considered as an alternative treatment option in patients with symptomatic fibroids in Australia and New Zealand, and in Liang’s paper, they anecdotally report that many of the women were not informed about fibroid embolisation as a treatment option.

Interestingly, there is work suggesting that not fully informing patients of their treatment options may result in a loss of patients from a gynaecology practice because of patient dissatisfaction, and establishing a joint care model may have the opposite effect.21 There can be little doubt that patients will have better outcomes with collaborative care, with almost all of the major studies on fibroid embolisation coming out of joint programs between gynaecology and IR.3,18,22

When post-fibroid embolisation complications occur, patients require gynaecologists with a high level of clinical and technical expertise, and specific experience with embolisation patients, for appropriate management. Good communication between the interventional radiologist, with knowledge of the procedure, and attending gynaecologist is necessary in the post-procedure period.

Fibroid embolisation is one aspect of the growing role interventional radiology can play in gynaecology and obstetric clinical practice. It has a recognised place in the management of postpartum haemorrhage,23 but in patients with uterine ‘arterio-venous malformations’,24 chronic pelvic pain secondary to pelvic venous congestion, or in patients with abnormal placentation, the use of IR is often dependent on locality and individual practice rather than high-level published data. Indeed some authors have questioned whether there has been over-use of embolisation in patients with iatrogenic uterine AVM’s25 and it is likely these types of questions will only be answered through larger multicentre studies of the type produced for fibroid embolisation.

Exciting collaborations using the rapidly developing technology in interventional radiology has produced new, minimally invasive treatment options for hepatobiliary, urological, neurosurgical and of course vascular surgical patients. Treatments including chemoembolisation for liver tumours, percutaneous tumour ablation for liver and renal cancer, and endovascular aneurysm repair have delivered improved patient outcomes with rapid recovery. None of the journeys taken when developing such new treatments have been without healthy interdisciplinary discussion, but the overarching goal of improved patient care has universally prevailed.

As with all accepted treatment options, the place of fibroid embolisation in the management of symptomatic uterine fibroids will evolve over time. Parallel with this evolution comes the greater opportunity of increased collaboration between gynaecology and interventional radiology developing cross-fertilisation of ideas spilling into others areas of research and clinical practice in gynaecology, obstetrics and gynaecological oncology.

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References


