Is there a role for ultrasound surveillance for asymptomatic women with advanced endometriotic disease?

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Posterior pelvic compartment deep infiltrating endometriosis (DIE) is known to be significantly associated with specific pelvic pain symptoms, and the excision of DIE has been shown to improve quality of life for these women.[1] However, the enigma of DIE and stage IV endometriosis is that not all of these women present with pain. In particular, women referred with ovarian endometrioma(s) are not uncommonly found to have concurrent bowel disease and/or pouch of Douglas (POD) obliteration at a specialised transvaginal ultrasound scan (TVS) assessment. Indeed, studies have demonstrated that endometriomas are significantly associated with both POD obliteration and bowel DIE.[2,3]

With the innovation of the specialised TVS for women with suspected endometriosis, we are able to identify women with complex pelvic disease. Intervention in symptomatic women with severe disease noted on TVS can be justified on the basis that an improvement in their quality of life is achievable. However, the management of asymptomatic women with severe disease is not always straightforward. In the absence of pain or infertility issues, it is difficult to justify the need for highly skilled surgical intervention. The risk of intra-operative complications such as bowel injury and post-operative complications such as an anastomosis leak for bowel resection clearly outweighs any potential benefit. The optimal management of this sub-group of women is still unknown. Yet another consideration is for asymptomatic women undergoing surgical treatment for endometrioma; perhaps the best strategy is to excise the endometrioma(s) and leave the remaining bowel DIE if fertility is not a goal.

Not to excise DIE or clear POD obliteration could conceivably allow further progression of the disease process, and in turn, lead to subsequent complications, such as future pain and bowel obstruction (in the case of bowel DIE). In order to prevent disease progression, one would argue the best course of action would be to excise the DIE before it creates symptoms and/or progresses to the degree where a more complex surgical procedure is required (i.e. bowel resection).

Given the potential complications that may be associated with either DIE excision or conservative management for asymptomatic women, the management should be considered carefully. Endometriosis is a potential continuum of disease and that although not all women with posterior compartment DIE will have POD obliteration at laparoscopy, there is a good chance that POD obliteration will develop if the disease is left untreated. In a recent study, 84% of women with rectal/rectosigmoid DIE also had POD obliteration at surgery.[4] POD obliteration increases surgical time and increases the risk of surgical complications; therefore the development of POD obliteration should be avoided if at all possible.

Asymptomatic women who have posterior compartment DIE and/or POD obliteration detected during specialised TVS could potentially be managed conservatively, with surveillance scans to determine whether disease progression is indeed occurring. However, surveillance scans would increase costs and potentially increase the anxiety level for these women. In addition, the window of opportunity to excise the disease with minimal surgical risk may be missed if the surveillance interval is left too long and disease progression has occurred. Given that we do not know how quickly DIE progresses, serial specialised TVS could hold the key in defining the nature of this disease process, and potentially lead to improved surgical management decisions for asymptomatic women with DIE.

References

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