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MINI- INVASIVE TREATMENT: UTERINE FIBROID TREATMENT

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Abstract	*This technical report discusses the interventional radiology (Uterine artery embolization) to treat uterine fibroid and highlights the indications, contraindications, complication, and outcome*
Keywords	*Uterine Fibroid, Uterine artery Embolization, Non-Invasive Competing interest*

INTRODUCTION

Uterine fibroids are noncancerous tumors of an unclear cause; Fibroids tend to react to the female oestrogen and progesterone hormones. Uterine fibroid affects the female reproductive tract with prevalence (25%-80%) and cumulative incidence of 20-40% of women's reproductive life. They are responsible for significant morbidity, which has also hurt the reproductive system and quality of life (1&2)

Diagnosis of uterine fibroid can be achieved by clinical examination and confirmed by transvaginal ultrasonography, magnetic resonance imaging, sono-hysterography, hysteron-scope, and the method of choices which is the Magnetic resonance (3)

In addition to the surgery, there is an alternative treatment for the uterine fibroid available from the radiology; it is a treatment known as uterine artery embolization (UAE), which was reported as a treatment of Uterine fibroid in 1995 by Ravina et al. (4). Based on the study, the main advantages of UAE treatment are safe, low degree of invasiveness, not affect the ovarian impound, and short hospitalization period (5&6)

Recently, the radiologist has a mini-invasive procedure regarding uterine fibroid, including uterine artery embolization (UAE) guided by magnetic resonance (6). Uterine artery embolization (UFE) is a common procedure and a generally accepted as an alternative to surgery for symptomatic uterine fibroid when it comes to uterine preservation. Radiologists used fluoroscopy agents to lead the embolic agent to the uterine fibroid to block the uterine artery from providing the blood to the fibroid and shrink them (7).

INDICATIONS AND CONTRAINDICATIONS

Women with symptomatic Uterine Fibroids including heavy menses, frequent urination, frequent vaginal bleeding, anemia, not plan for future pregnancy, premenopausal, and bulk pelvic are candidates for the UAE intervention. However, UAE are contraindication on pregnant women, gynecology malignancy such as ovarian or endometrial malignancy, uterine infection, Pelvic inflammatory disease, and Asymptomatic fibroids (8&9).

COMPLICATIONS

The complication post therapy are rare but it may cause post-embolization syndrome as a result of ischemic uterine tissue includes, nausea, vomiting, fever, pain, fatigue, pelvic pain, and ovarian insufficiency which may develop to menopausal symptoms or amenorrhea . However, inject the embolic agents into unmeant vessels, limb necrosis, or pulmonary embolism are the most possible dangerous complications (10).

PROCEDURE

The clinical impact of the UAE is high. Once the position of the catheter has been confirmed in the

internal iliac artery, a guide wire enters the uterine artery and catheter pass over the guide wire. Subsequently, angiography is performed to evaluate the vascularity and size of the fibroid prior to inject the embolic agent to occlude the uterine artery in order to stop the blood supply reach to fibroid, resulted in shrinking the uterine fibroids with improvement gynecological symptoms. Usually the procedure conducted under epidural, spinal anesthesia, or conscious sedation.

OUTCOME AND CONCLUSION

Clinically, the response to uterine artery embolization is high. Significant improvement achieved, 80–93% of patients reported reducing in menorrhagia, 50 to 78 decreases in fibroid volume. Gyroglou et al (2011) in his study observed improvement in life quality after 6 years of UAE. On another hand, Tomislav et al (2011) reported that the complication of UAE is low, and the outcomes are fast and magnificent. However, still there is arguments about its indication for women who seeking pregnancy or wanting to maintain their fertility (12).

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