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Open Access Research Article

Effectiveness of Uterine Artery Embolization in the Management of Symptomatic Patients with Uterine Fibroids at the Medical City in Baghdad

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Abstract

Background: Uterine fibroids are a common gynecological condition that may cause heavy menstrual bleeding, pelvic pain, and pressure on the nearby organs. Uterine artery embolization is a minimally invasive treatment that offers an alternative to myomectomy or hysterectomy. The procedure works by occluding the uterine arteries and reducing blood flow to the fibroids, which leads to ischemia and gradual shrinkage, thereby relieving the symptoms.

Objectives: To evaluate the effectiveness of uterine artery embolization in reducing the size of the uterine fibroids and alleviating the associated symptoms, and to compare treatment outcomes between International Federation of Gynaecology and Obstetrics FIGO 0–3 and 4–7 groups according to the FIGO classifications of uterine fibroids.

Methods: This prospective comparative study, conducted at the Baghdad Teaching Hospital, from December 4, 2023, to December 22, 2024, involved 20 patients with symptomatic uterine fibroids, who underwent uterine artery embolization. Ultrasounds were performed prior to, and three months and six months after the procedure, to evaluate the fibroid volume, the largest fibroid diameter, volume reduction rate, symptom improvement, and adverse events. The volume reduction rates of the two groups were compared, based on the fibroid classification (Group A: FIGO 0-3 and Group B: FIGO 4-7) at three and six months.

Results: Of the 20 women included in the study 90% were over the age of 35 years and 65% were obese. Following uterine artery embolization, menorrhagia decreased from 90% to 40%, intermenstrual bleeding from 45% to 5%, and dysmenorrhea from 65% to 30%. Radiologically, the mean fibroid volume reduction at six months was significantly higher in the FIGO 0–3 group (93.7%, p=0.006) compared to the FIGO 4–7 group (26.0%, p=0.002).

Conclusions: Uterine artery embolization is an effective procedure that significantly reduces fibroid size and improves its symptoms; the reduction in the largest fibroid diameter was more pronounced in the FIGO 0–3 group than in the FIGO 4–7 group.

Keywords: FIGO classification of uterine fibroid; Menorrhagia; Uterine artery embolization; Uterine fibroids.

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Introduction

Uterine fibroids, or leiomyomas, are the most prevalent benign tumors in the female reproductive system, originating from the abnormal growth of individual smooth muscle cells within the myometrium (1).

According to the FIGO classification of uterine fibroids (2), they are graded as follows:

0 Intracavitary pedunculated
1 Submucosal, less than 50% intramural
2 Submucosal, at least 50% intramural
3 Completely intramural, although in proximity to the endometrium
4 Intramural
5 Subserosal, at least 50% intramural
6 Subserosal, less than 50% intramural
7 Pedunculated subserosal
8 Others (parasitic, cervical, etc.)

Many women with fibroids may remain asymptomatic. However, for those who experience symptoms, these often vary based on the size, number, and location of the fibroids (3) . The symptoms include menstrual disturbances, such as heavy bleeding (menorrhagia) and/or painful periods (dysmenorrhea), pelvic pressure or lower back pain, abdominal bloating or distension, increased frequency of urination, incontinence, inadequate bladder emptying, or difficulty urinating, constipation, infertility, pregnancy loss, and postpartum haemorrhage(2).

The type and size of the fibroid, the patient's age, her desire to maintain fertility, and her symptoms, all influence how the fibroids are managed. Some medicinal therapies try to alleviate symptoms without removing the fibroids, while surgical alternatives include hysterectomy and myomectomy. However, for patients seeking to avoid major surgery while still achieving significant symptom relief, Uterine Artery Embolization (UAE) has become a well-established, minimally invasive alternative (4).

UAE is an angiographic procedure in which synthetic particulate emboli are injected into both uterine arteries. This blocks the blood flow to the uterus, causing ischemia and necrosis of the fibroids. As the blood vessels supplying leiomyomas have a larger diameter, the microspheres are preferentially directed towards the tumors, minimizing damage to the surrounding healthy tissue (5).

Prior to undergoing UAE, a woman typically undergoes radiological imaging and MRI, to assess the characteristics of the myoma, for treatment success (6). Women with endometrial abnormalities on imaging, especially those over the age of 45, should undergo an endometrial biopsy prior to UAE, as UAE is not an approved treatment for endometrial cancer(7). Electrolytes, estimated glomerular filtration rate (eGFR), complete blood count (CBC), platelet count (more than 50,000 per microliter), international normalized ratio (INR) (less than or equal to 1.5), and beta human chorionic gonadotropin (to rule out pregnancy), must all be measured prior to the procedure. The gynaecologist screens for infections, as well as for endometrial and cervical cancers. Additionally, intrauterine devices are usually removed prior to the procedure (8)(9).

Uterine artery embolization is generally suitable for all women with symptomatic fibroids, particularly those experiencing heavy menstrual bleeding. However, for women with asymptomatic fibroids, UAE is typically not recommended, hence, alternative treatments must be explored(10). The following may be useful guidelines for treatment choice:

- Patients who have not had adequate relief from other treatments may be considered suitable candidates for UAE (5).
- Patients who have undergone previous myomectomy, repeat surgery can be technically challenging due to the risk of adhesion formation (7).
- Preoperative magnetic resonance imaging (MRI) can be helpful in evaluating arterial supply, which can influence the treatment plans. Following UAE, a myoma with a high signal intensity on T1-weighted imaging and no enhancement following gadolinium contrast injection, is unlikely to get better (8).
- Uterine artery embolization can be considered for symptomatic uterine fibroids of any size. Traditionally, UAE was reserved for smaller fibroids due to concerns about limited effectiveness and higher complication rates with larger fibroids (>8 cm) (11).
- Women who do not wish to preserve fertility may be candidates for alternative treatments like UAE. Based on the current evidence, women who have not yet completed childbearing may benefit more from myomectomy, to preserve fertility (12). UAE is a viable treatment option for women who might otherwise require a hysterectomy or myomectomy (3)(13).

Complications of UAE include groin injury, hematoma, infection, contrast allergy, radiation exposure to ovaries, persistent vaginal discharge, fibroid expulsion, and ovarian failure (14).

Failure of UAE may result from poor patient selection, problems in catheterizing the uterine arteries, incomplete embolization, and arterial spasm, resulting in insufficient embolic flow, a spurious embolization endpoint due to embolic material clumping, re-canalization of embolized arteries, concomitant adenomyosis or leiomyosarcoma, uterine structural variations, and the existence of major collateral arteries (such as ovarian arteries) (15).

The aim of our study was to evaluate the effectiveness of uterine artery embolization in reducing the size of the uterine fibroids and alleviating the associated symptoms, and to compare treatment outcomes between International Federation of Gynaecology and Obstetrics FIGO 0–3 and 4–7 groups according to the FIGO classifications of uterine fibroids.

Patients and Methods

A prospective comparative study was carried out at Baghdad Teaching Hospital in the Medical City Complex in Baghdad, Iraq, from December 4, 2023 to December 22, 2024. Twenty patients with symptomatic uterine fibroids (UFs) underwent UAE at an Interventional Radiology Institution, using polyvinyl alcohol (PVA) particles (300–550 μm). The patients were evaluated through a detailed obstetric, gynecological, and medical history, including age, parity, body mass index (BMI), fertility desires, and family planning. Baseline investigations included CBC, coagulation profile, renal function tests, and a pregnancy test.

Inclusion criteria:

- Symptomatic patients with uterine fibroids confirmed by ultrasound or MRI.
- Patients seeking a non-surgical, uterus-preserving treatment.

Exclusion criteria:

- Current pregnancy.
- Active pelvic inflammatory disease or malignancy.
- Previous uterine artery embolization or major uterine surgery.
- Pedunculated subserosal fibroids.

Women over 45 years, who experienced irregular uterine bleeding, underwent hysteroscopy and endometrial biopsy before UAE, to exclude malignancy. MRI was performed for all patients, to assess the fibroid site, size, number, and FIGO classification. Following the procedure, the patients were advised to use reliable contraception (progesterone-only pills, depot injections, implants, or a levonorgestrel IUD) to prevent pregnancy-related bias during follow up. The fibroid volume was measured by ultrasonography prior to, and three and six months post the UAE, using the formula: Volume = (length × width × height) × 0.52 (16) .

The volume reduction rate (VRR) was calculated as the percentage decrease from the baseline. FSH and the β-hCG levels were measured at baseline and at three, and six months. Anaemic patients received correction to Hb ≥10 g/dL, with Hb and menstrual blood loss (pads/day) monitored at follow-up. VRR was analyzed by FIGO-type: Group A (types 0–3) and Group B (types 4–7). For multiple fibroids, classification was based on the predominant location. Ultrasound scans were performed by the same radiologist.

Symptom improvement rate (SIR) was calculated as the percentage of patients reporting with improvement at six months, based on interviews and questionnaires, focused on clinical signs and symptoms, including menorrhagia, dysmenorrhea, intermenstrual bleeding and chronic pelvic pain. The 11-point Numerical Pain Rating Scale was used to score pain (zero = no pain, 10 = worst pain).

Procedure of Uterine artery embolization: In the angiography center, UAE was carried out under conscious sedation. Fentanyl citrate, a synthetic opioid, was continuously infused intravenously at a rate of 1 mL per hour to treat pain during and after UAE surgery. If pain continued after surgery, oral medication (Acetaminophen, co-codamol, nefopam) was administered. Interventional radiologists used a local anaesthetic to perform bilateral selective catheterization and uterine artery embolization. A 5-Fr arterial sheath was inserted into the right common femoral artery. The left common iliac artery, left internal iliac artery (Anterior division), and the uterine artery (mid-distal segment) were engaged using a 5-Fr Cobra catheter (C2). All the patients had uterine arteriography prior to the UAE, to ensure that there were no visible ovarian or abnormally dilated uterine–ovarian anastomoses to the ovaries.

The uterine artery was then embolized past the cervicovaginal branch using PVA particles ranging from 300–550 μm. In every instance, UAE was carried out by first embolizing the left uterine artery, followed by the right uterine artery.

The experienced interventional radiologists were given the authority to decide on the embolic agent and angiographic endpoint. The arterial blood flow to the fibroids was often lateral and the dose of the PVA particles varied depending on the blood flow in the fibroids. Under fluoroscopy, embolization was carried out until the uterine 27 artery had a "pruned tree appearance" or until the contrast medium remained static for five heartbeats. The contralateral uterine artery was then embolized in a similar manner.

Following embolization, the arterial sheath was removed immediately, and haemostasis was achieved by compression. Patient monitoring was done for at least four hours. All the patients were discharged home on the same day of the endovascular surgery and kept on analgesics and antibiotics.

Statistical analysis: The data were analyzed using the Statistical Package for the Social Sciences version 28 (SPSS 28; SPSS, Inc., Chicago, IL). Descriptive statistics were presented as frequencies and percentages and were applied to explain the characteristics of the participants. The paired sample t-test was used to compare the uterine size and dimensions before and after the procedure. the Mann-Whitney U test was employed for the percentage volume and diameter reduction to compare the treatment response between the two independent groups (FIGO 0–3 vs. FIGO 4–7). Before analysis, data were tested for normality and homogeneity of variance to ensure all statistical assumptions for parametric and non-parametric testing were met. Statistical Significance was set at $p < 0.05$.

Ethical considerations: A thorough description of the study's purpose and procedures was provided to the women before asking for their voluntary participation. Each patient gave her verbal and written consent, and the data was anonymized. Names were replaced by identification codes. All the data used for this study were stored securely in a password-protected computer. Baghdad Teaching Hospital/ Department of Obstetrics and Gynecology and Ghazi Al-Hariri Teaching Hospital gave their approval.

Results

The age range of the women included in the study was 28–50 years (mean 42.1 ± 5.80) with (90%) being over the age of 35 years. Obesity was common (65%), and 70% were multiparous. Multiple fibroids were present in 65% of cases, **Table (1)**.

Table 1: Basic characteristics of the study sample (No. =20)

Variable	Frequency	Percentage
Age		
<34	2	10.0
35-44	9	45.0
45+	9	45.0
BMI (Kg/m2)		
Normal weight (18.0 – 24.9)	4	20.0
Overweight (25.0 – 29.9)	3	15.0
Obese (≥30)	13	65.0
Parity		
Nulliparous	4	20.0
Primiparous	2	10.0
Multiparous	14	70.0
Fibroid distribution		
Single	7	35.0
Multiple	13	65.0

Out of 32 detected fibroids, 1 (3.1%) had FIGO 0, 3 each (9.4%) had FIGO 1, 6 and 7, 2 (6.3%) had FIGO 2, 6 each (18.8%) had FIGO 3 and 4, and 8 (25.0%) had FIGO 5, **Table (2)**.

Table 2: FIGO classification of the studied sample

FIGO classification of each fibroid	Frequency (N=32)	Percentage
0	1	3.1
1	3	9.4
2	2	6.3
3	6	18.8
4	6	18.8
5	8	25.0
6	3	9.4
7	3	9.4

Significant symptom improvement occurred after UAE. Menorrhagia decreased from 90% at baseline to 40% at six months (P=0.003). Dysmenorrhea reduced from 65% to 30% (p=0.019), and intermenstrual bleeding from 45% to 5% (p=0.001). Chronic pelvic pain and urinary incontinence showed improvement but were not statistically significant (p>0.05), **Table (3)**

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Table 3: Signs and symptoms before and after treatment with uterine artery embolization

Signs and symptoms	Baseline No. (%)	At 3 months No. (%)	At 6 months No. (%)	P value
Menorrhagia				
Yes	18 (90.0)	11 (55.0)	8 (40.0)	0.003
No	2 (10.0)	9 (45.0)	12 (60.0)	
Dysmenorrhea				
Yes	13 (65.0)	8 (40.0)	6 (30.0)	0.019
No	7 (35.0)	12 (60.0)	14 (70.0)	
Chronic pelvic pain				
Yes	8 (40.0)	5 (25.0)	3 (15.0)	0.237
No	12 (60.0)	15 (75.0)	17 (85.0)	
Urinary incontinence				
Yes	3 (15.0)	3 (15.0)	2 (10.0)	1.000
No	17 (85.0)	17 (85.0)	18 (90.0)	
Intermenstrual bleeding				
Yes	9 (45.0)	1 (5.0)	1 (5.0)	0.001
No	11 (55.0)	19 (95.0)	19 (95.0)	

Fibroid Volume and Diameter Changes

FIGO 0–3 (Submucosal Fibroids):

- Mean volume decreased from 68.3 ± 69.20 cm³ at baseline to 15.4 ± 18.20 cm³ at 3 months (−77.5%, P = 0.009) and 4.3 ± 5.10 cm³ at 6 months (−93.7%, P= 0.006).
- Mean diameter reduced from 5.3 ± 2.00 cm to 3.4 ± 1.60 cm at 3 months (−35.8%, p = 0.001) and 1.8 ± 1.40 cm at 6 months (−66%, p < 0.001).

FIGO 4–7 (Intramural/Subserosal Fibroids):

- Mean volume decreased from 101.4 ± 115.20 cm³ to 86.1 ± 247.10 cm³ at 3 months (−15%, P= 0.002) and 75.0 ± 131.30 cm³ at 6 months (−26%, P = 0.002).
- Mean diameter declined from 6.3 ± 2.80 cm to 5.3 ± 2.90 cm at 3 months (−15.8%, p < 0.001) and 4.7 ± 3.80 cm at 6 months (−25.4%, P= 0.001), **Table (4)**.

- A between-group analysis revealed that the FIGO 0–3 group achieved a significantly higher volume reduction rate (93.7%) compared to the FIGO 4–7 group (26.03%) at the 6-month follow-up $P < 0.001$.

Table 4: Volume and diameter reduction of fibroid after treatment with uterine artery embolization

FIGO classification	Baseline value	Volume/diameter at 3 months			Volume/diameter at 6 months		
		Mean	Percent reduction	P value	Mean	Percent reduction	P value
Fibroid volume							
Uterine fibroids (FIGO 0-3)	68.3 ± 69.20	15.4 ± 18.20	77.5%	0.009	4.3 ± 5.10	93.7%	0.006
Uterine fibroids (FIGO 4-7)	101.4 ± 115.20	86.1 ± 247.10	15.0%	0.002	75.0 ± 131.30	26.0%	0.002
% Volume reduction test between FIGO groups*	-	-	< 0.001	-	-	< 0.001	-
Fibroid diameter							
Uterine fibroids (FIGO 0-3)	5.3 ± 2.00	3.4 ± 1.60	35.8%	0.001	1.8 ± 1.40	66.0%	<0.001
Uterine fibroids (FIGO 4-7)	6.3 ± 2.80	5.3 ± 2.90	15.8%	<0.001	4.7 ± 3.80	25.4%	0.001
% Diameter reduction test between FIGO groups*	-	-	0.004	-	-	<0.001	-

***P*-value calculated using Mann-Whitney U test comparing the percentage reduction between the two groups.**

Pain was the most prevalent side effect of the UAE procedure (100%), followed by nausea (55.0%) and fever (35.0%). Major complications included ovarian failure (20.0% of cases, as well as persistent vaginal discharge and fibroid expulsion, each occurring in 10.0% of the cases; treatment failure was found in one case for whom hysterectomy was performed Table 5 and Figure 1.

Table 5: Side effects and complication profile of uterine artery embolization

Side effects and complications	Frequency	Percentage
Side effects		
Pain	20	100.0
Nausea	11	55.0
Fever	7	35.0
Vomiting	3	15.0
Complications		
Ovarian failure	4	20.0
Persistent vaginal discharge	2	10.0
Fibroid expulsion	2	10.0
Endometritis	1	5.0
Treatment failure	1	5.0

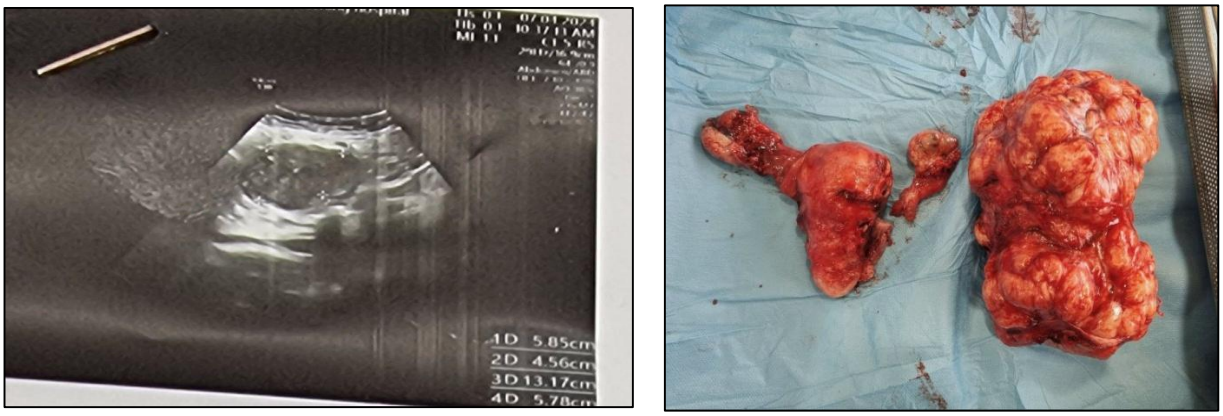

Figure 1: Treatment failure post UAE, uterus with large subserosal (false broad ligament) fibroid (picture was taken from our hysterectomized patient)

Discussion

The mean age of participants in the current study aligns with the findings of the California Teachers Study and Australian data, which reported peak uterine fibroid (UF) prevalence in women aged 40–49 years (17)(8). With about two thirds of our participants being obese, the results support the findings of Qin et al's meta-analysis, which showed that obesity increases UF risk by 19% (18). The enhanced peripheral conversion of androgens to estrogen in adipose tissue, which encourages fibroid growth, may account for the correlation between high BMI and fibroids in our group. The high multiparous rate in our study agrees with the findings of Abrar et al. (77%) and Latif et al., whose study sample consisted entirely of multiparous women with a parity of three or more (13)(19).In our

study, a between-group analysis revealed that the FIGO 0–3 group achieved a significantly higher volume reduction rate compared to the FIGO 4–7 group at the 6-month follow-up, which aligns closely with Ito et al. (20) Zlotnik et al. attributed higher shrinkage specifically to submucosal locations (>50% volume reduction) (21). This could be explained by the fact that lower FIGO grade fibroids (submucosal/ intramural) are more susceptible to the ischemic effects of embolic agents than pedunculated subserosal UF because they frequently have a more robust and concentrated blood supply. Our findings imply that the anatomical vascular mapping inherent in FIGO staging is still a crucial predictor of UAE success, in contradiction to Cappelli et al. (22) who suggested that size is a better predictor than location.

Our study found a significant decrease in dysmenorrhea and menorrhagia by more than one half, while Walker et al. and Toor et al. reported (84% and 79%) and (78%–90%) respectively. The Ontario UAE Trial reported Significant improvements for menorrhagia (83%), dysmenorrhea (77%), and urinary frequency/urgency (86%) (23)(24)(25). This high incidence of symptom relief is probably explained by the fibroids' successful devascularization, which lowers uterine volume and the inflammatory mediators linked to dysmenorrhea. Post procedural pain was universal among our cases, consistent with Hehenkamp et al., who identified pelvic pain as the most common transient complaint representing the expected inflammatory response to tissue ischemia (26).

A fifth of our cases experienced ovarian failure. Elevated serum Follicle-Stimulating Hormone (FSH) levels at the three-month and six-month follow-up intervals were used to diagnose all cases, which were only seen in the 45–50 age group. This implies that although UAE is beneficial, older individuals who are nearing menopause may be more susceptible to ovarian insufficiency as a result of the UAE. Our particular sample demographics and small size are probably to blame for this greater rate as compared to Kaump et al.'s result of (<2%) (22) (27).

The procedure failed in only one case in our series necessitating a subsequent hysterectomy, aligning with the series of Spies et al., who reported a 6% failure rate (28). Upon surgical examination, the patient presented with a large subserosal fibroid located in the false broad ligament. The fibroid's size and anatomical position are probably the cause of this failure. The utero-ovarian anastomoses may provide collateral blood flow to subserosal and broad ligament fibroids, shielding the tissue from the full ischemic effect of UAE. This instance demonstrates a well-known drawback of UAE: Although it works quite well for FIGO 0–3 kinds (submucosal and intramural), subserosal variants may need an initial surgical approach or a more cautious prognosis if bulk symptoms are significant.

Limitations

Small sample size: this small cohort was largely due to the limited availability and periodic shortages of specialized embolic agents required for (UAE) in our healthcare setting.

Conclusion

Uterine artery embolization is an effective procedure that results in significant reduction of fibroid size and improvement of menorrhagia, dysmenorrhoea, and intermenstrual bleeding, especially when the fibroids that are submucosal (FIGO 0-2) and intramural (FIGO 3). UAE may be a suitable option for women not seeking pregnancy; however, further studies with larger cohorts are needed to confirm these findings.

Authors' declaration:

We attest that every figure and table in the manuscript is part of the current investigation. Additionally, the figures and photographs that are not part of the current study have been granted permission to be republished and are attached to the text. On ethical issues, authors sign. Approval-Ethical Clearance: On November 15, 2023, the project was approved under code number (46) by the local ethical committee in the Scientific Council of Obstetrics and Gynocolcogy).

Conflict of interest

Regarding this work, the authors declare that they have no conflicts of interest.

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Data availability: Data supporting the findings of this study are available from the corresponding author upon reasonable request

Author's contributions:

Dr. Najmah M. Meran (study conception, design and data analysis, interpretation, manuscript editing and review)

Dr. Zaid Hadi Kadhim (performed uterine artery embolization for all the patients, data acquisition, data analysis and interpretation)

Dr. Asya Hasan Jasim (Literature search, data acquisition, data analysis and interpretation, manuscript preparation)

AI Declaration:

No artificial intelligence tools were used in the design, analysis, or writing of this manuscript.

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فعالية الانصمام الشرياني الرحمي في علاج المريضات اللواتي يعانون من أعراض الأورام الليفية الرحمية في مدينة الطب ببغداد

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الخلاصة

الخلفية: تُعدّ الأورام الليفية الرحمية حالة شائعة في أمراض النساء، وقد تُسبب غزارة الطمث، وآلام الحوض، والضغط على الأعضاء المجاورة. يُعتبر انصمام الشريان الرحمي علاجًا طفيف التوغل يُقدّم بديلًا لاستئصال الورم الليفي أو استئصال الرحم. يعمل هذا الإجراء عن طريق سدّ الشرايين الرحمية وتقليل تدفق الدم إلى الأورام الليفية، مما يؤدي إلى نقص التروية الدموية وانكماشها تدريجيًا، وبالتالي تخفيف الأعراض.

الأهداف: لتقييم فعالية الانصمام الشرياني الرحمي في تقليل حجم الأورام الليفية الرحمية وتخفيف الأعراض المصاحبة لها، ولمقارنة نتائج العلاج بين مجموعات الاتحاد الدولي لأمراض النساء والتوليد FIGO 0-3 و FIGO 4-7 وفقًا لتصنيفات FIGO للأورام الليفية الرحمية.

المنهجية: شملت هذه الدراسة المقارنة المستقبلية، التي أُجريت في مستشفى بغداد التعليمي في الفترة من 4 ديسمبر 2023 إلى 22 ديسمبر 2024، 20 مريضة يعانين من أورام ليفية رحمية مصحوبة بأعراض، خضعن لعملية انصمام الشريان الرحمي. أُجريت فحوصات الموجات فوق الصوتية قبل العملية، وبعدها بثلاثة أشهر وستة أشهر، لتقييم حجم الورم الليفي، وأكبر قطر له، ومعدل انخفاض حجمه، وتحسن الأعراض، والآثار الجانبية. قُورنت معدلات انخفاض حجم الورم الليفي بين المجموعتين، بناءً على تصنيف الورم الليفي) المجموعة أ FIGO 0-3 والمجموعة ب FIGO 4-7 بعد ثلاثة وستة أشهر.

النتائج: شملت الدراسة 20 امرأة تجاوزت (90%) منهن سن 35 عامًا، و65% منهن يعانين من السمنة. بعد إجراء الانصمام الشرياني الرحمي، انخفضت غزارة الطمث من 90% إلى 40%، والنزيف بين الدورات الشهرية من 45% إلى 5%، وعسر الطمث من 65% إلى 30%. شعاعيًا، كان متوسط انخفاض حجم الورم الليفي بعد ستة أشهر أعلى بشكل ملحوظ في مجموعة FIGO 0-3 (93.7%)، (p=0.006) مقارنةً بمجموعة FIGO 4-7 (26.03%)، (p=0.002).

الاستنتاجات: يُعدّ الانصمام الشرياني الرحمي إجراءً فعالًا يُقلّل بشكل ملحوظ من حجم الورم الليفي ويُحسّن أعراضه، وكان انخفاض قطر أكبر ورم ليفي أكثر وضوحًا في مجموعة FIGO 0-3 منه في مجموعة FIGO 4-7.

الكلمات المفتاحية: تصنيف FIGO للأورام الليفية الرحمية؛ غزارة الطمث؛ انسداد الشريان الرحمي؛ الأورام الليفية الرحمية.