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An expert consensus on the medical management of uterine fibroids and complementing surgical management with focus on low dose mifepristone

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Abstract
Objectives: The aim of this consensus guideline is to provide clinicians with an understanding of the clinical significance of uterine fibroids and the best evidence available on treatment modalities with a focus on low dose mifepristone as an option for patients who need symptom relief preoperatively or post-operatively.
Methods: The areas of clinical practice considered in formulating this consensus statement shared by gynecologists during the meeting were organized into four key themes, namely screening and diagnosis of fibroids, medical management of fibroids, role of low dose mifepristone in the medical management of fibroids, and complimenting surgical management of fibroids with low dose mifepristone.
Results: Medical and surgical procedures were analyzed in the therapy of uterine fibroids. Novel medical approaches with low dose mifepristone (25 mg) were explored and found to establish an effective new therapy. Mifepristone may be used as a pre-operative adjunct to reduce the size of fibroids. Post-operative use of mifepristone can be typically initiated at a low dose of 25 mg. Ultrasound examinations were suggested to monitor the uterine fibroids. Mifepristone is safe even when used for a prolonged duration. Mifepristone has low cumulative incidence of fibroid recurrence after surgery, and provides faster recovery of reproductive function.
Conclusion: Implementation of this consensus statement should optimize the decision-making process of women and their physician in assessment of treatment for uterine fibroids, having considered the disease process and available treatment options, and evaluated the risks and anticipated benefits. New options now exist, with mifepristone, a progesterone receptor antagonist proven to treat fibroid symptoms effectively. These recommendations can improve the quality of care for women with uterine fibroids utilizing the best available evidence and best clinical practices.

Keywords: Uterine fibroids, mifepristone, ultrasound, myomectomy, hysterectomy

Introduction
Uterine fibroids are a prevalent gynecological concern affecting a substantial portion of women during their reproductive years [1-4]. A recent meeting of gynecologists convened to discuss the management of uterine fibroids (UF) and explored the potential role of mifepristone (MFP) in addressing this complex condition.

Methods
In this review article, we delved into the insights and perspectives shared by gynecologists during the meeting, and organized them into four key thematic areas, namely screening and diagnosis of fibroids, medical management of fibroids, role of low dose MFP in the medical management of fibroids, and complimenting surgical management of fibroids with low dose MFP.

Results
Screening and Diagnosis of Fibroids: Assessment of uterine fibroids and selection of treatment options are guided by imaging techniques such as ultrasound.

Table 1: Assessment Recommendations for Practice

Clinical Recommendations Use ultrasonography as the initial investigation for asymptomatic women with suspected uterine fibroids
Conduct regular ultrasound screenings with at least 3-month intervals to monitor changes in fibroid size and location
Consider yearly screenings or ultrasound in high-risk patients
Assess both the volume and size of fibroids for a comprehensive evaluation
Include uterine fibroid assessment in preconception checkups to support informed reproductive choices
Prioritize patient counseling and raise public awareness about uterine fibroids

Ultrasonography as the Preferred Screening Tool

Ultrasonography (USG) should be the preferred initial investigation for asymptomatic women with suspected uterine fibroids. The accessibility and non-invasiveness of USG make it an indispensable diagnostic tool for assessing uterine fibroids. It's ability to provide detailed information on fibroid characteristics cannot be overstated [5-7]. Regular USG screenings, with intervals of at least 3 months between tests to monitor any changes in fibroid size and location is important. The location and size of uterine fibroids are critical. Thorough evaluation is needed to guide treatment decisions effectively.

Many fibroids may be discovered incidentally during unrelated medical examinations [6-8]. Such findings should prompt further evaluation, given the potential impact on a woman's reproductive health.

Recommendations for yearly screening or USG in high-risk patients; assessing the volume, not just the size, of fibroids is essential. Preconception checkups should include an assessment for uterine fibroids to facilitate informed reproductive choices.

Patient Counseling and Public Awareness: There is a general lack of awareness of fibroids and their potential health impact among women [9-10]. 95.73% lack knowledge about uterine fibroids. 92.68% have a dissatisfactory perception on fibroids. It is important to have patient counseling and increased public awareness regarding uterine fibroids. Early detection and education can empower women to make well-informed decisions about their health. The gynecologists shared key insights regarding the screening and diagnosis of uterine fibroids in asymptomatic women. The consensus on the importance of ultrasonography and the critical role of patient counseling set the stage for further exploration of uterine fibroids management and the potential integration of mifepristone.

Medical Management of Uterine Fibroids

Patient-focused fibroid management is guided by medical history, physical examination, imaging, and results of blood tests. If patients begin to experience symptoms and require treatment, a definite fibroid management plan can be developed.

Table 2: Summary of Recommended Treatment Options for Uterine Fibroids

Recommended Therapies
Lifestyle changes, dietary modifications, and exercise are important to manage fibroid- related symptoms
Mifepristone should be preferred over GnRH agonists for its ability to immediately stop bleeding and lower the risk of heavy bleeding during the first cycle
Mifepristone carries very low risk of pregnancy compared to GnRH agonists
Surgery should be considered for women above 40 years of age

Treatment options for uterine fibroids include observation, medical intervention, surgical procedures or a combination.8 Treatment of women with uterine fibroids should be individualized to the size and location of the fibroid, the patient's age, symptoms, desire to maintain fertility, and access to treatment; and the physician's experience.

Table 3: Tailoring Treatment to Patient Characteristics [6]

Patient characteristics	**(Uterine artery embolization has to be done at certified centre)**	**Treatment options**
Asymptomatic women		Observation
Symptomatic women who desire fertility preservation		Non-surgical treatment or myomectomy
Symptomatic women who do not desire future fertility but wish to preserve the uterus		Non-surgical treatment or myomectomy, myolysis, or uterine artery embolization
Women who desire fertility preservation and have had a pregnancy complicated by uterine fibroid tumors		Myomectomy
Infertile women with distortion of uterine cavity		Myomectomy
Women with severe symptoms who desire definitive treatment		Hysterectomy

Treatment Options for Symptomatic Uterine Fibroids

The gynecologists discussed various approaches for the medical management of symptomatic uterine fibroids

- **Lifestyle Changes and Surgical Considerations:** Lifestyle changes, dietary modifications, and exercise are important to manage fibroid-related symptoms. Surgery should be recommended as a last resort, particularly for women above 40 years of age
- **Mifepristone:** Mifepristone, the first progesterone receptor antagonist, has emerged as a promising medical intervention for uterine fibroids.

Several advantages of mifepristone are as follows [7, 11]

Table 4: Effective use of Mifepristone in Fibroids

Up to 50% reduction in uterine/fibroid volume
Amenorrhea in up to 70% of women
Oral administration
Minimal side effects
Less expensive than GnRH analogues
Very low risk of bleeding
80-85% success rate
Drug of choice in infertility and type 3 myomas
Use for acute abnormal uterine bleeding

Tranexamic acid reduces heavy menstrual bleeding but it has no effect on fibroid size.12 Moreover, caution must be exercised with its use, as indiscriminate use can lead to very high platelet counts. The utilization of low-dose mifepristone (25 mg) in the medical management of uterine fibroids is a subject of growing interest and debate.

Table 5: Role of Low-Dose 25 mg Mifepristone in Medical Management of Uterine Fibroids

Clinical Recommendations
Treatment regimens for mifepristone in uterine fibroids may include 25 mg for three months followed by a USG evaluation, or 25 mg for three months followed by 10 mg for an additional six months
Mifepristone can be safely used for 6-9 months; with liver function tests recommended three-monthly

Clinical Evidence on the Use of Low-Dose Mifepristone (25 mg)

Multiple studies were presented to support the efficacy of mifepristone in fibroid management, with a particular focus on its use in low-dose regimens. Various studies demonstrated benefits on reduction of myoma volume and size when 25 mg mifepristone was given for 3 to 6 months13-16

Safety of Prolonged Mifepristone Use [17]: Mifepristone is safe even when used for a prolonged duration. No evidence of hyperplasia or atypia in the endometrium has been reported, supporting its use over extended period of 6 months in the management of uterine fibroids.

Complimenting surgical management of Fibroids with Low Dose Mifepristone

Mifepristone may directly decrease the progesterone receptor (PR) in the myometrium.

Table 6: Summary Recommendations for mifepristone use

Clinical Recommendations
Post-operative use of mifepristone can be typically initiated at a low dose of 25 mg. The recommended treatment duration is three months
Annual ultrasound examinations are suggested to monitor the patient's progress and the potential recurrence of fibroids

Medical therapy complements surgical therapy [7, 18-22]

- As a pre-operative adjunct.
- To reduce the size of fibroids.
- To control bleeding.
- To improve blood hemoglobin levels.
- To make surgery easier.
- As a post-operative adjunct.
- To relieve signs and symptoms.
- To prevent recurrence of fibroids after uterine conserving procedures.

Several advantages of mifepristone make it a compelling alternative to other treatments, particularly GnRH agonists which includes.

Mifepristone has low cumulative incidence of fibroid recurrence after surgery, and provides faster recovery of reproductive function.

Conclusions Future Directions

The experts also discussed potential future directions for mifepristone use. One notable prospect is it's application in the management of acute abnormal uterine bleeding (AUB), potentially involving high-dose regimens as a starting point. This signifies an ongoing exploration of mifepristone's role in the ever-evolving landscape of uterine fibroid management.

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References

1. Munusamy MM, Sheelaa WG, Lakshmi VP. Clinical presentation and prevalence of uterine fibroids: A 3-year study in 3-decade rural South Indian women. Int J Reprod Contracept. Obstet. Gynecol. 2017 Dec;6(12):5596-5601.
2. Chitra B, Gomathi S, Raju R. Prevalence of Uterine Fibroids and Associated Risk Factors - A Prospective Observational Analysis. IJPPR Human. 2023;27(1):465-471.
3. Swain D, Yadav C, Kumari J, *et al*. Predictors and symptomatic burden of uterine fibroids among women in South-Eastern India: A cross-sectional survey analysis. Int. J Reprod. Contracept. Obstet. Gynecol. 2019 Feb;8(2):524-530.
4. Ngorili GS, Yadav BB, Takalkar AA. Epidemiological study of uterine fibroids: Our experience from urban Maharashtra. Int. J Reprod. Contracept. Obstet. Gynecol. 2022 Aug;11(8):2101-2105.
5. Expert Panel on GYN and OB Imaging; Ascher SM, Wasnik AP, Robbins JB, *et al*. ACR Appropriateness Criteria® Fibroids. J Am Coll. Radiol. 2022 Nov;19(11S):S319-S328.
6. Evans P, Brunsell S. Uterine fibroid tumors: diagnosis and treatment. Am Fam. Physician. 2007 May 15;75(10):1503-8.
7. Khan AT, Shehmar M, Gupta JK. Uterine fibroids: Current perspectives. Int. J Womens Health. 2014 Jan 29;6:95-114.
8. Unkels R. Uterine Fibroids. Available at: https://www.glowm.com/pdf/Chap-19_Unkels.pdf
9. Marsh EE, Al-Hendy A, Kappus D, *et al*. Burden, Prevalence, and Treatment of Uterine Fibroids: A Survey of U.S. Women. J Womens Health (Larchmt). 2018 Nov 1;27(11):1359-1367.
10. Sowmithra VK, Jayarakkini A. A Cross Sectional Study on Knowledge, Attitude and Perception of Uterine Fibroids among Women with Fibroids Attending a Tertiary Health Care Centre in Chennai, India. JPRI. 2021;33(63B):12-18.
11. Kulshrestha V, Kriplani A, Agarwal N, *et al*. Low dose mifepristone in medical management of uterine leiomyoma - an experience from a tertiary care hospital from north India. Indian J Med. Res. 2013 Jun;137(6):1154-62.
12. Leyland N, Leonardi M, Murji A, *et al*. A Call-to-Action for Clinicians to Implement Evidence-Based Best Practices When Caring for Women with Uterine Fibroids. Reprod. Sci. 2022 Apr;29(4):1188-1196.
13. Gupta M, Jamwal N, Sabharwal S, Sobti S. A prospective

interventional study to evaluate the effects of medical therapy (Mifepristone 25 mg) on the management of uterine fibroids. J Family Med Prim Care. 2020 Jul 30;9(7):3230-3235.
14. Seth S, Singh E, Mathur AS, *et al*. Low-dose Mifepristone (25 mg) in Treatment of Uterine Myoma in Perimenopausal Women. J South Asian Feder Menopause Soc 2013;1(1):34-37.
15. Mukherjee S, Chakraborty S. A study evaluating the effect of mifepristone (RU-486) for the treatment of leiomyomata uteri Niger Med J. 2011 Jul-Sep;52(3):150-152.
16. Subashree I, Prasad G. Management of uterine leiomyoma with mifepristone and its outcome in South Indian population. Indian J Obstet. Gynecol. Res. 2018;5(3):384-388.
17. Varun N, Prasad S, Kumar, A. Effect of low dose mifepristone on the endometrial histopathology in patients with symptomatic leiomyoma. International Journal of Scientific Research. 2017;6(10):278-280.
18. Palshetkar N. Key Practice Points on Fibroids. Available at: https://www.fogsi.org/wp-content/uploads/tog/KPP_Key_Practice_Points_on_Fibroids_Final.pdf
19. Lethaby A, Puscasiu L, Vollenhoven B. Preoperative medical therapy before surgery for uterine fibroids. Cochrane Database Syst. Rev. 2017 Nov 15;11(11):CD000547.
20. Arora D, Chawla J, Kochar SPS, Sharma JC. A randomized control trial to assess efficacy of Mifepristone in medical management of uterine fibroid. Med J Armed Forces India. 2017 Jul;73(3):267-273.
21. Kramer KJ, Ottum S, Gonullu D, Bell C, Ozbeki H, Berman JM, *et al*. Reoperation rates for recurrence of fibroids after abdominal myomectomy in women with large uterus. PLoS One. 2021 Dec 9;16(12):e0261085.
22. Tolstanova GO. The prevention of recurrence of uterine fibroids after conservative myomectomy. Reproductive health of woman. 2021;9-10:94-99.

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