



Original Research Article

Novel management of fibroid with Ulipristal

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ABSTRACT

Introduction Fibroid with heavy menstrual bleeding and pain in pre and perimenopause women to reduce it, in reproductive women to relieve symptoms in infertility and in preoperative conditions to reduce size of fibroid, now a days medical therapy is available.

Aim: To determine effectiveness and safety of Ulipristal in symptomatic fibroid by assessing reduction in heavy menstrual bleeding, pain, reduction in size of the fibroid and improvement in activity score

Materials and Methods: This is a Prospective study. Women between 20- 45years both unmarried and married attending gynaec OPD of Saveetha Medical College and hospital with fibroid with symptoms of heavy menstrual bleeding, pain abdomen during period, with Infertility were recruited after ethical Clearance and informed consent. Study was conducted from September 2018 to Dec 2018 first week. Menstrual blood loss was assessed with pictorial blood loss chart (PBAC) and pain was assessed with short form Mc Gill pain questionnaire pain score. After routine investigation including LFT, USG abdomen and Pelvis were done for all subject and mapping of fibroid were done pretreatment and every month and at the end of treatment. Women were given 10 mgs Ulipristal once daily for 13 weeks. Post treatment investigations and USG were repeated.

Results: Women age group between 30-40 years were 86.5%, 20-25 were 6.66% and Nulliparous were 6.66%. Pretreatment 66.66% had PBAC score of 130 and above. None of the women had PBAC <100 before treatment. After 13 weeks treatment Perimenopause women 13.33% developed amenorrhea. 20% women had PBAC score < 100, PBAC score 100-110, in 63.33% of women, PBAC between 111 -120 score in 3.33% PBAC score between 120 and above were Nil. Fibroid volume reduced between >25 to < 50% in 53.33% of size and volume and 10% fibroid disappeared. There is considerable improvement in pain score with p value of 0.0001 and activity score significantly improved with p value of 0.0001.

Conclusions: In all age groups commonest gynaec condition is Fibroid. In the study Ulipristal resulted in, improvement in heavy menstrual bleeding, pain and considerable reduction in size of the fibroid and thereby improved quality of life

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1. Introduction

Fibroids although benign, are commonly associated with abnormal uterine bleeding Murji A et al¹ In some women it is asymptomatic but it is the leading cause of hysterectomy. Conversely women do experience symptoms. The most common are increase in menstrual bleeding, known as menorrhagia, sometimes with blood clots, sometimes causes

pelvic pain, painful menstruation, infertility, pressure on the bladder, which may cause frequent urination and a sense of urgency to urinate and, rarely, the inability to urinate; pressure on the rectum, resulting in constipation, pelvic pressure, "feeling full" in the lower abdomen, lower abdominal pain. Fibroid can increase up to umbilicus, and/ pelvic mass discovered during a physical examination. Previously it is most preferred therapy was surgery. Now Medical therapy is preferred in symptomatic fibroid, to relieve symptoms in infertility, and in pre and peri

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menopause women, in preoperative conditions to reduce size. This oral medication can be used before surgery to reduce size so that blood loss during surgery will be less and transfusion of blood during surgery will be less and fibroid can be easily removed through laparoscopy. Ulipristal reduces bleeding and achieves amenorrhea. J. Simon W.H. Catherino et al² Oral medical management for fibroid is selective progesterone receptor modulator - Ulipristal acetate (UPA). Simon James et al³ menstrual bleeding was controlled in 92% of the women who received 10 mg of Ulipristal acetate. Jacques Donnez et al.⁴ Stated that other medical therapies like GnRH agonist for fibroids have limitations. GnRH agonists cause side effects such as hot flashes and atrophic vaginitis, osteoporosis that may reduce adherence to therapy and require add back therapy but Ulipristal is well tolerated Simon JA et al.⁵ Ulipristal acetate can effectively control bleeding, pain and reduce fibroid volume, and restore QoL in patients with symptomatic fibroids Jacques Donnez et al.⁶ It eliminates the need for surgery or postpones surgery and has efficacy equivalent to surgery and cheaper alternative

2. Aim

To determine effectiveness of Ulipristal in symptomatic fibroid by assessing reduction in heavy menstrual bleeding, pain and improvement in activity score.

To determine effectiveness of Ulipristal in symptomatic fibroid by assessing fibroid size number and volume or its disappearance and to determine its efficacy

3. Materials and Methods

Prospective study conducted at Saveetha Medical College and hospital Gynaec outpatient Department. Study was conducted from September 2018 to Dec 2018 first week. Women between 20- 45 years both unmarried and married attending gynaec OPD with fibroid with symptoms of heavy menstrual bleeding (HMB), pain abdomen during period, with Infertility were recruited after ethical Clearance and informed consent. Monthly blood loss was assessed with pictorial blood loss chart (PBAC) and pain was assessed with short form Mc Gill pain questionnaire pain score. After routine investigation including LFT, USG abdomen and Pelvis were done for all subject and mapping of fibroid(size, volume, number, situation) and endometrial thickness and ovaries were assessed by 2D USG and Sonologist was blinded about the study. Women were selected by convenient sampling and Ulipristal was given 10mgs per day for 13 weeks. Women were evaluated at the end of every month for symptoms and USG was repeated to assess the reduction in size of fibroid. At the end of 13th week along with routine investigations, fibroid mapping and endometrial thickness and ovaries were assessed by 2D USG by the Sonologist. Improvement in anaemia was

assessed by Hb and PCV and improvement in menstrual loss by PBAC and improvement in pain was assessed by short form Mc Gill pain questionnaire pain score. Quality of life was assessed by Activity score which was assessed by Physical functioning, Role limitations due to physical health, Role limitations due to emotional problems, Energy/fatigue, Emotional well-being, social functioning. To assess side effects, spontaneously reported or elicited by non-leading questions and were recorded. For safety LFT, triglycerides & glucose, endometrial thickness were assessed at the end of the study. Women were followed up for drug-free up to 12 weeks

3.1. Inclusion criteria

Women in a age group between 20 - 45 years, both married and unmarried with fibroid both symptomatic & asymptomatic with infertility and perimenopause women with Pictorial blood loss score more than 100 and Fibroid size 3cm - 10cm were included

3.2. Exclusion criteria

Women with Liver disease, renal disorders, with comorbid medical conditions with breast carcinoma and genital malignancy, with ovarian cyst, with large fibroid polyp, with endometrial hyperplasia, not willing for the study were excluded from the study

4. Results

Statistical Analysis was done by mean, percentage analysis and pair T test for Pre and Post treatment analysis with p value of < 0.05 statistic carried out at a confidence interval of 95 % shows the standard deviation.

In the study maximum 36.6% age group were between 36 -40years followed by 26.6% between 31-35 years, 23.30% between 26 -30years, minimum between 20-25 were 6.66% and 41-45 years were 6.66% (Figure 1) Nulliparous women in the study were 6.66% and 93.6% were multiparous. Predominant symptoms among the women were heavy menstrual blood loss and was assessed by Pictorial blood loss score and 66.66% had PBAC of 130 and above 20% had PBAC between 121 - 130, PBAC of 120-111 in 6.6% of women, 110-100 PABC in 6.6%. None of the women had PBAC <100. After treatment perimenopausal women who had heavy menstrual loss, bleeding was reduced within 15 - 20 days and 13.33% women went in for Amenorrhea. After 13 weeks treatment women 20% women had PBAC score <100 , PBAC score 100-110 in 6.33% of women, PBAC between 111 -120 score in 3.33% PABC score 120 and above were Nil. There is appreciable improvement in reduction in menstrual blood loss (Figure 2) Hb level was increased to 12 gm in 53.3% women and in 40% above 9gm (Figure 3). In the study pain during periods was the next complaint. Pain was assessed by short form Mc Gill

pain questionnaire pain score was based on pain nature like excruciating, horrible, distressing and discomfort and mild. There is considerable improvement in pain during periods after treatment with a p value of 0.001 (Table 1) In the study fibroid volume reduction > 25% in 23.33% of women, between >25 to < 50% in 53.33% of women >50% in 13.33% women and in 10% of women fibroid disappeared when fibroid size was 3cm which was sustained during follow-up.(Figure 3). In the study no evidence of significant changes in endometrial thickness seen in USG or laboratory results during the course of treatment. Activity score was assessed by Physical functioning, Role limitations due to physical health, Role limitations due to emotional problems, Energy/fatigue, Emotional well-being, social functioning. Study results showed activity score for the various quality factor had improved considerably after treatment as evidenced by the P value 0.0001. (Table ??) There was no adverse reaction during the study period and during the follow-up. Side effects like headache and breast tenderness was reported by in 6.66% of women

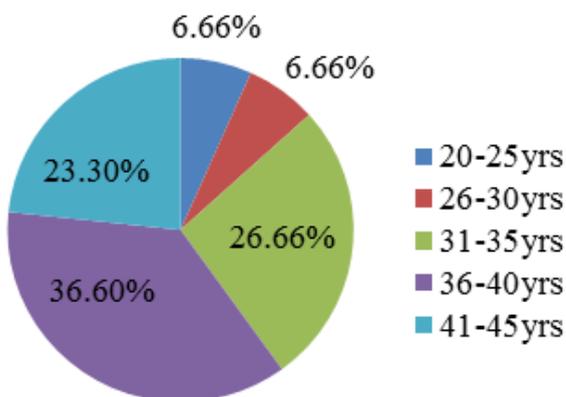


Fig. 1: Age Distribution

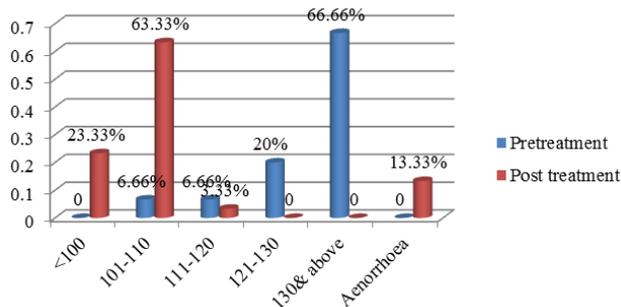


Fig. 2: Menstrual blood loss before and after treatment

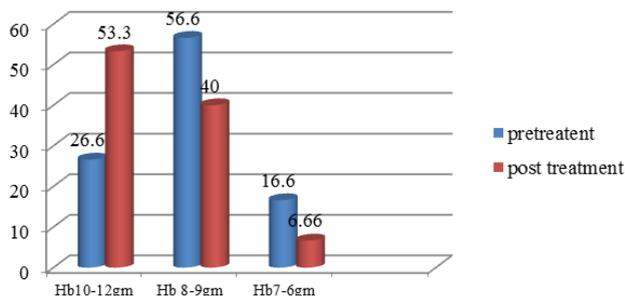


Fig. 3: Hb level increased after treatment

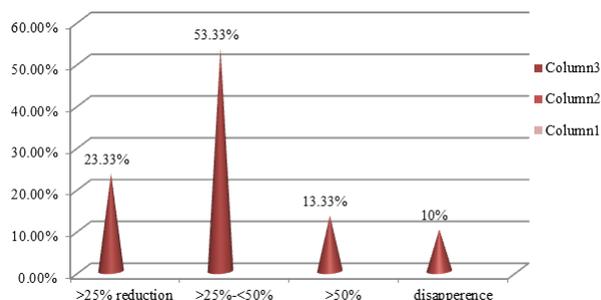


Fig. 4: Percentage of Fibroid size and volume reduction after treatment

5. Discussion

In the study major complaint among women were heavy menstrual blood loss which was scored by PBAC. Study conducted by Jacques Donnez and Olivier Donnez⁶ control of bleeding seen >80% and PBAC score from >200 reduced to < 100 at the end of second course but in the study reduction in PBAC score was seen in 86.6%. Study by Jacques Donnez et al⁶ median reduction in size of fibroid volume after 5gs and at the end of 10mgs Ulipristal was 54% and 58% but in the study 53.33% reduction between >25% to 50% size and volume and in 10% fibroid disappeared. In the study head ache and breast tenderness were reported. In the study no changes in endometrial thickness similar to Jacques Donnez M.D, Olivier Donnez, M.D. Dace Matule, M.D et al.⁷ In the study there was sufficient improvement in quality of life due to reduction in size and marked improvement in with a p value of 0.001. Jacques Donnez, Guillaume E Courtoy, Olivier Donnez et al⁸ in his review article and his key message stated that Ulipristal acetate significantly reduces fibroid size and controls bleeding and improves quality of life, which is similar to the study. Jacques Donnez Marie-Madeleine et al⁹ stated that Fibroids are highly prevalent and leads to high health burden and has an impact on their quality of life and has economic impact. As current treatment mostly surgical there is need for new options. In the study fibroid was treated effectively with 10 mgs Ulipristal for 13 weeks

Table 1: Pain score before and after

| Pain Score | Pre treatment | | Post treatment | | pvalue |
|------------|---------------|-------------|----------------|-------------|--------|
| | Median 16.01 | St Dev 2.10 | Median 11.5 | St Dev 3.93 | 0.0001 |

Table 2: Activity score after treatment

| Activity Score | Pretreatment Median | St Dev | Post Treatment Median | St Dev | pvalue |
|----------------|---------------------|--------|-----------------------|--------|--------|
| Pretreatment | 41.6 | 15.33 | 62.8 | 10.47 | 0.0001 |

which is similar to the statement by Donnez J, Dolmans M et al¹⁰ that SPRMs such as Ulipristal are proven to treat fibroid effectively. In the study perimenopausal women Ulipristal arrested bleeding and in few women lead to amenorrhea, hence most perimenopausal women prefer Ulipristal than surgery. Singh SS¹¹ concluded that Ulipristal may decrease the incidence of surgical and other modality of treatment

6. Conclusions

Ulipristal was efficient in controlling heavy menstrual bleeding and amenorrhea was developed in perimenopausal women. There was reduction in fibroid volume and disappearance of fibroid in few women which was sustained during follow-up. Pain during periods and quality of life was considerably improved. During treatment there was no adverse reaction and very few side effects were noticed. Ulipristal can be an alternative to surgery Hence results of the study concluded that Ulipristal is both effective and safe for fibroid treatment. It is a novel therapy for fibroid management

6.1. Acknowledgement

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7. Study funded

Meyer Vitabiotics

7.1. Conflict of interest

None.

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