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A study of efficacy of ormeloxifene in treatment of adenomyosis

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Abstract

Objective: This study is carried out to find out efficacy of ormeloxifene in the treatment of Adenomyosis.

Study design: Prospective study conducted on the patients attending outpatient department of a tertiary health care institute in Maharashtra.

Study duration: 4 Months.

Materials and Methods: Patients in reproductive age group with symptoms suggestive of and are ultrasonographically confirmed with adenomyosis were given Tab ormeloxifene according to standard dose after initial assessment. These patients were followed after 3 months of treatment and earlier if required and assessment of success of treatment done on the basis of relief of symptoms. If the patients still complains of the symptoms Laparoscopic hysterectomy done as the ultimate line of management. The data was analyzed using simple charts and tables.

Results: The average age of occurrence of adenomyosis in our institute is 38.5 years. Most commonly they presented with the symptoms of dysmenorrhea (62.50%) others were menorrhagia and polymenorrhea. There is significant reduction in the symptoms of adenomyosis with ormeloxifene. With minor side effects like nausea, headache and oligomenorrhoea which is ultimately beneficial to the patients.

Almost 83.33% patients improved symptomatically with its use. Only 16.67% patients were not relieved of symptoms and required hysterectomy as the ultimate line of management.

Conclusion: The results of our study suggest that ormeloxifene is a promising conservative treatment for adenomyosis with minimal side effects provided the patients chosen wisely. However long term effects and side effects needs to be evaluated.

Keywords: Adenomyosis, ormeloxifene, SERM

Introduction

Adenomyosis though common is an under-diagnosed disease of the uterus. The incidence of adenomyosis in hysterectomy specimens of women is reported to range between 15 and 57% [1, 2, 3]. The first description of this condition was provided in 1860 by the German pathologist Carl von Rokitansky, who found endometrial glands in the myometrium and subsequently referred to this finding as "cystosarcoma adenoids uterinum" [4]. The modern definition of adenomyosis was provided in 1972 by Bird who stated: "Adenomyosis may be defined as the benign invasion of endometrium into the myometrium, producing a diffusely enlarged uterus which microscopically exhibits ectopic non-neoplastic, endometrial glands and stroma surrounded by the hypertrophic and hyperplastic myometrium" [5, 6].

Adenomyosis may present as heavy menstrual bleeding, dysmenorrhea, abnormal uterine bleeding, bloating, dyspareunia, pelvic pain, infertility, and miscarriage [7, 8].

Adenomyosis can be diagnosed both by transvaginal ultrasound and MRI. With the addition of 3D ultrasound and a closer evaluation of the transition zone from the endometrium to the myometrium (The JZ), ultrasound evaluation is reproducible and may show improved diagnostic accuracy [9, 10, 11].

Medications such as NSAIDs, oral contraceptive pills, high-dose progestins, a LNG IUS, danazol, gonadotropin-releasing hormone agonists are often used to manage the symptoms of adenomyosis and to temporarily induce relief [12, 13, 14, 15]. However, many women require more aggressive forms of treatment. Historically, the most common treatment for symptomatic adenomyosis has been hysterectomy which increases operation related morbidity and mortality [16]. Moreover, hysterectomy is also not appropriate in women who has not completed their family.

This study is conducted to evaluate efficacy of ormeloxifene in treatment of adenomyosis.

Ormeloxifene (Also known as centchroman) is one of the selective estrogen receptor modulators, or SERMs, a class of medications which acts on the estrogen receptor. In India, Ormeloxifene has been available as a birth control product since the early 1990s. It mediates its effects by high affinity interaction with ER, antagonizing the effect of estrogen on uterine and breast tissue and stimulating effect on vagina, bone, cardiovascular system and central nervous system [17, 18].

Materials and Methods

This is prospective study carried out in Dr. Shankarrao Chavhan government medical college and hospital a tertiary health care center in Maharashtra over the period of 4 months after obtaining permission from institutional ethical committee. Total 28 patients in reproductive age group with symptoms suggestive of and sonographically diagnosed with adenomyosis were included in the study after taking consent. Out of these 4 patients lost the follow up so the ultimate study included on 24 patients. On initial visit the patients were asked detailed history regarding the symptoms and a thorough clinical examination was done. PAP smear was taken of every patient as an opportunistic screening and ultimately the patients were subjected to ultrasonography. The patients with adenomyosis were given tablet Ormeloxifene 60 mg twice weekly for the period of 3 months and were asked to follow up after 3 months or earlier whenever necessary.

The success of treatment was assessed based on the symptomatic relief of the patients without subjecting the patients to follow up USG. We also asked for any side effects with drug and recorded them separately. The collected data was analyzed afterward. Those who were relieved of symptoms advised to continue the tablet once weekly for another 3 months and those who were still having the complaints underwent laparoscopic hysterectomy.

Table 2: common symptoms of adenomyosis and their prevalence in study population

Symptoms with which patients present	No. of patients	Percentage
Dysmenorrhoea	15	62.50%
Menorrhagia	6	25.00%
Polymenorrhoea	3	12.50%

Commonly patients present with the symptoms of dysmenorrhea, menorrhagia and polymenorrhoea with dysmenorrhea being the most common with 62.50% of patients presenting with this symptom 15 among 24 patients presented with this symptom.

Table 3: Success of ormaloxifene in treatment of adenomyosis

Relief from symptoms	No. of Patients	Percentage
Yes	20	83.33%
No	4	16.67%

At the end of 3 months the patients were categorized as those who were relieved of their symptoms and those who were not and accordingly the success of treatment was calculated. The study showed that among 24 patients who were given ormeloxifene 20 were relieved of symptom which corresponds with 83.33% of study population while 4 remained symptomatic at the end of the treatment in whom laparoscopic hysterectomy was done as the ultimate treatment measure.

Thus ormeloxifene was successful in treating approximately

Results

Out of 28 patients of reproductive age group enrolled 4 patients lost the follow up. Minimum age of the patient with adenomyosis was 30 yrs and maximum was 47 yrs, so the average age of occurrence of adenomyosis in the study group was 38.5 yrs.

Table 1: Age wise incidence of adenomyosis in study population

Age group	No. of patients with adenomyosis	Percentage
25 - 30 yrs	4	16.70%
31 - 35 yrs	2	8.31%
36 - 40 yrs	8	33.34%
41 - 45 yrs	8	33.34%
46 - 50 yrs	2	8.31%

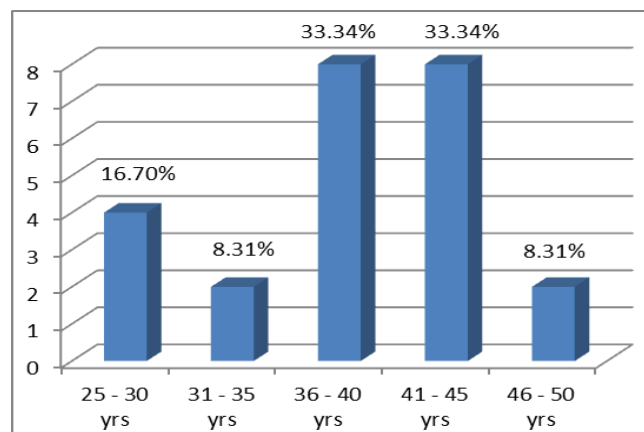


Fig 1: Age wise distribution of patients with adenomyosis

The study showed that maximum patients i.e. 66.8% with adenomyosis occurred in the age group of 36 to 45 years numbering 16 patients among 24 patients in this age group. The percentage and number of patients in other age groups are shown in the chart.

83.33% of patients with adenomyosis.

Table 4: Side effects of ormaloxifene in study population

Side effects	No. of patients	Percentage
Headache	1	4.17%
Headache & Nausea	1	4.17%
Nausea	3	12.50%
Oligomenorrhoea	5	20.83%
None	14	58.33%

Speaking of the side effects most of the patients didn't get any adverse effects with others having only minor side effects like headache, nausea and oligomenorrhoea which in a way was useful for patients with menorrhagia.

Discussion

Adenomyosis is an important clinical challenge in gynecology and healthcare economics; in its fully developed form, hysterectomy is often used to treat it in premenopausal and perimenopausal women. Symptoms of adenomyosis typically

include menorrhagia, pelvic pain and dysmenorrhea. The other conservative options being use of medications like oral contraceptive pills, progestogens, danazol, LNG IUS etc.

In our study we studied the efficacy of ormeloxifene a SERM for treatment of adenomyosis. Symptomatic relief was used as the parameter of comparison and ultrasonography was used as the measure of diagnosis.

In our study we found out that most of the patients with symptomatic adenomyosis belong to 36 to 45 years of age group. The most common symptom with which they present was dysmenorrhoea and others being menorrhagia and polymenorrhoea and finally the ormeloxifene is effective for conservative management of adenomyosis. 20 patients among 24 patients were symptomatically got better with ormeloxifene. Although our sample size was small, we got significant success rate with ormeloxifene for adenomyosis (83.33%) with minor side effects like headache, nausea and oligomenorrhoea which in a way is a boon for patients. However long term effects and side effects needs to be evaluated.

Conclusion

Our study concludes that Ormeloxifene a SERM commonly known as centchroman used as contraceptive pill is a potential pharmacological treatment for adenomyosis. However further long term studies to be carried out to find out long term treatment success and long term side effects ormeloxifene.

Conflicts of interest: None

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