

DRAMATIC ROLE OF DIANOGEST TO REDUCING PAIN IN ENDOMETRIOSIS

¹DR. KIRTI SINGH, ²DR. HEMLATA JHARBADE, ³DR. ATUL KHARE

¹SENIOR RESIDENT OBGY, ²PROFESSOR, ³SENIOR RESIDENT
^{1,3}GMC SHAHDOL, ²MGM INDORE

Abstract

Objective

To evaluate the efficacy and safety of dienogest treatment in patients who had received dienogest for 6 months or more to treat endometriosis with also side effects.

Methods

We evaluate the clinical data of 50 women of reproductive age group with endometriosis who had been treated with 2 mg of dienogest once a day for 6 months, at a single institute. We evaluated changes in endometriosis-associated pain and endometrioma size, and adverse events following dienogest administration, VAS scoring also done.

Results

Pain was significantly reduced at 6 months after dienogest medication. The most common adverse drug reaction was headache [42%] followed by 28% nausea and vomiting, associated with high discontinuation rates. A good satisfaction score found, so dienogest might be an effective therapeutic option for the long-term management of Endometriosis.

Conclusion

Finally, our study concluded that, Dienogest seems to be effective for the treatment of pain and bleeding abnormalities, associated with endometriosis. Dianogest is a safe, effective. Mean VAS significantly reduced after dianogest use.

Keywords: DNG-Dienogest, GnRH-Gonadotropin-releasing hormone, VAS-Visual Analog Score

INTRODUCTION

The growth of endometrial tissue (both glands and stroma) outside the uterine cavity which causes a chronic inflammation inside or outside the pelvis^[1] is known as Endometriosis. It is a common estrogen-dependent disease, identified by the pain, dysmenorrhea and dyspareunia^[2,3].

Endometriosis involves multiple sites in the pelvis but the malignancies associated with this disease are mostly confined to the ovaries, from an endometrioma^[14].

The diagnosis based on clinical symptoms plays a vital role in treatment for endometriosis^[15,16]. Thus, when a woman is diagnosed by the symptoms, caused by endometriosis^[17,18] an empirical hormonal treatment is recommended.

Progestins are suggested as a first-line hormonal therapy for the treatment of endometriosis-related pain^[19].

European Union in 2009 gave approval to Dienogest, which is a fourth-generation progestin for the treatment of endometriosis.^[20-23] Dienogest binds to the progesterone receptor. When it is taken continuously it inhibits systemic gonadotropin secretion and has local anti-proliferative and anti-inflammatory effects on endometriotic lesions^[20,24-26].

Dienogest differs from other progestins in the same class^[23,26] due its anti-proliferative and anti-angiogenic properties. Depending upon the chronic nature of the condition, medical treatments for endometriosis need to balance clinical efficacy and symptom relief with an acceptable long-term safety profile^[16].

AIMS AND OBJECTIVES

- To evaluate the effectiveness of dienogest in controlling pain in endometriosis.
- To evaluate side effect of dienogest.

MATERIALS AND METHODS

This study “**Prospective Cohort Study of Role of Dienogest in Management of Pain in cases of Endometriosis**” was conducted in the Department of Obstetrics and Gynaecology, MGM Medical College and M.Y. Group of Hospital, Indore (M.P) from **September 2019 to August 2020**. Study was done according to the regulations of the Institutional Ethics Committee.

• **SAMPLE SIZE:**

50 women in the reproductive age group 18-45 years.

INCLUSION CRITERIA

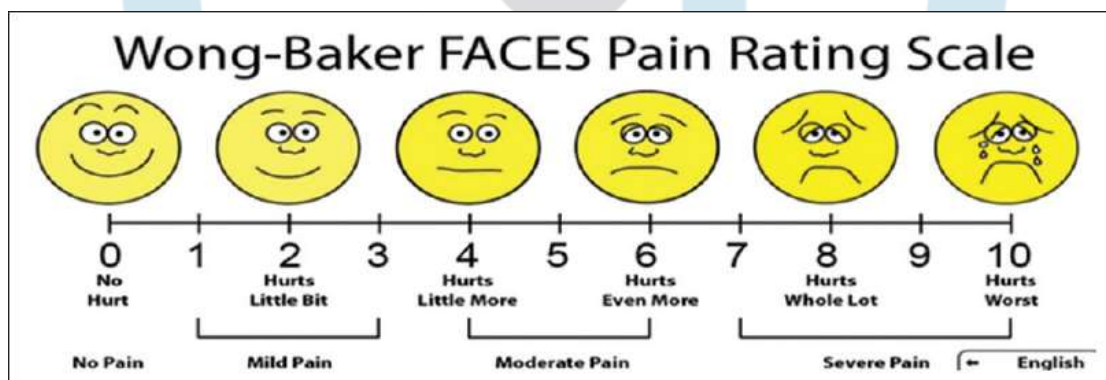
- Women with endometriosis and presence of at least one of the symptoms dysmenorrhea, infertility, chronic pelvic pain, dyspareunia, who gives consent.

EXCLUSION CRITERIA

- Women with congenital or acquired uterine anomaly, genital bleeding of unknown etiology, other medical disorder like thyroid and bleeding disorder, liver and heart disease, who had undergone a therapeutic surgical procedure in past 6-month, pregnancy as well as those with a desire immediate pregnancy.

STUDY PROCEDURE

- Detailed history was taken, general and gynecological examinations were done.
- According to patient's pain VAS Scoring was done
- Either USG, MRI or if needed Laparoscopy was done.
- Patients were instructed to take a daily dose of Tab Dienogest 2mg, post dinner.
- Explained the side effect of the drug to all patients.
- Follow up card was provided to all patients and follow up was done at 1, 3 and 6 months and repeat usg done to saw disease size.
- Patient satisfaction, side effects, safety profile of dienogest was assessed.



OBSERVATIONS AND RESULTS

Table 1
Cases Based on Age

Age Group (years)	No. of Cases	%
<25	5	10
25-30	9	18
31-35	11	22
36-45	20	40
>46	5	10
Total	50	100

The highest percentage of patients 40% belonged to 36-45 Years followed by 22% who were of 31-35 Years of Age group. Most patient comes under 25-45years age group.

Table 2
Cases Based on Area

Urban/ Rural	No. of Cases	%
Rural	15	30
Urban	35	70
Total	50	100

The higher percentage of patients 70% were from Urban area while, only 30% belonged to Rural Area. The highest percentage of patients 28% belonged to Lower Middle socioeconomic status.

Table 3
Cases Based on Parity

Parity	No. of Cases	%
P0	12	24
P1	4	8
P2	20	40
P3	4	8
P4 & above	10	20
Total	50	100

The highest percentage of patients 40% had Parity P2 followed by 24% who were having P0, 20% had P4 and above while, remaining 16% had P1 and P3 equally.

Table 4
Status of Prior to Treatment

Any Prior T/T	No. of Cases	%
OCP	14	28
Surgery [≥ 6 months]	9	18
None	27	54
Total	50	100

According to prior T/T, the highest percentage of patients 54% were not having any Prior T/T, 28% who reported to have it on OCP while 18% were having it on Surgery.

Table 5
Based on previous History (h/o) of Endometriosis

Previous H/O of Endometriosis	No. of Cases	%
No	38	76
Yes	12	24
Total	50	100

Basis of past history of Endometriosis, the higher percentage of patients 76% were not having History of Endometriosis while, 24% were having it.

Table 6
Duration of 1st Symptom

Duration of Symptom	No. of Cases	%
<1 year	7	14
1-2 year	19	38
3-5 year	22	44
>5 year	2	4
Total	50	100

The highest percentage of patients 44% had 1st symptom for 3-5 years followed by 38% who had it for 1-2 years, 14% had it for <1 year while, only 4% had 1st symptom for >5 years.

Table 7
Symptoms of Endometriosis

Symptoms	No. of Cases	%
CPP + Dysmenorrhea	20	40
CPP + Dysmenorrhea + Heavy Menses	20	40
CPP + Dyspareunia + Dysmenorrhea	5	10
CPP + Infertility	4	8
CPP + Infertility + Heavy Bleeding	1	2
Total	50	100

An equal percentage of patients, 40% had CPP+ Dysmenorrhea and CPP + Dysmenorrhea+ Heavy Menses followed by 10% who were having CPP + Dyspareunia + Dysmenorrhea, 8% had CPP + infertility while, the lowest percentage 2% had CPP+ infertility+ Heavy Bleeding.

Table 8
USG /Lap Finding

USG Finding	No. of Cases	%
<2×3 cm Endometriotic Cyst	7	14
3 to 5 cm Endometriotic Cyst	10	20
5 to 8 cm Endometrioma	8	16
>8cm Endometrioma	2	4
Adenomyosis	8	16
Laparoscopic Done	15	30
Total	50	100

based on their USG Finding, An equal percentage of patients i.e. 16% had 5 to 8 cm endometrioma and adenomyosis followed by 7% who were having <2×3 cm endometriotic cyst, 4% had >8cm endometrioma while, the lowest percentage 2% had 3 to 5cm endometriotic cyst.

Table 9**Per Vaginal(P/v) Finding at beginning of Treatment**

P/V Finding	No. of Cases	%
UT Bulky Fornix Free	15	30
UT 8 to 10 Weeks	10	20
Not Done	5	10
UT A/V Fornix Obliterated	8	16
UT R/V Motion Tenderness	7	14
WNL	5	10
Total	50	100

based on their P/V Finding. The highest percentage of patients 30% had UT Bulky Fornix free followed by 20% who were having UT 8 TO 10 weeks.

Table 10
Patients Satisfaction Score

Patients Satisfaction Score	No. of Cases	%
Not satisfied (0-3)	10	14
Satisfied (4 to7)	15	30
Very satisfied (8 -10)	25	50
Total	50	100

based on this, 50% were Very Satisfied followed by 30% who were Satisfied while, 14% were Not Satisfied.

Table 11
Drug Side Effect

Drug Side Effect	No. of Cases	%
Headache	12	42
Nausea And Vomiting	14	28
Spotting	6	12
Weight Gain	13	26
Others	5	10
Total	50	100

The highest percentage of patients 42% had Headache followed by 28% who were having Nausea and Vomiting, 26% had Weight Gain, 12% had Spotting while, the lowest percentage 10% were having other side effects.

Table 12
Most Common Concomitant Disease

MC Concomitant DS	No. of Cases	%
Adenomyosis	15	30
Endo polyp	2	4
Fibroid	5	10
PCOS	3	6
No	25	50
Total	25	50

MC Concomitant DS they had 50% were not having any Concomitant DS, 30% who reported to have Adenomyosis, 10% had Fibroid, 6% had PCOS while, 4% were having Endo polyp.

Table 13
Site of Disease

Site	No. of Cases	%
Ovary	24	48
Uterus	9	18
Ovary + Fallopian Tubes	12	24
Peritoneum	5	10
Total	50	100

Based on site of disease, 48% were having Ovary followed by 24% who reported to have it in Ovary + Fallopian Tubes, 18% had it in Uterus, and only 10% had it in Peritoneum.

Table 14
Final Treatment after 6 months

Final Treatment	No. of Cases	%
Drug	33	66
Drug followed by IVF	2	4
Drug + Cystectomy	3	6
Drug + TAH	4	8
Drug + TAH +Cystectomy	3	6
Other	5	10
Total	50	100

Final Treatment after 6 month they had, 66% were given Drug followed by 10% who reported to have Other Treatment, 8% had Drug + TAH, an equal percentage 6% had Drug + Cystectomy and Drug + TAH +CYSTECTOMY while, 4% had DRUG f/b IVF.

Table 15
Willingness to Continue Drug or not

Wants Continue Drug or not	No. of Cases	%
Yes	30	60
No	10	20
Other	10	20
Total	50	100

The highest percentage of patients 60% wanted to Continue Drug while, an equal percentage 20% did not want it and want other treatment.

Table 16
Comparison of Mean VAS among Site Groups
(Before Treatment)

Site Groups	N	Mean VAS	Std. Deviation	F Test	P value	PRE – Result
Ovary	24	8.29	1.459	0.951	0.424	Non-Significant
Uterus	9	9.22	.972			
Ovary + Fallopian tubes	12	8.42	1.832			
Peritoneum	5	8.40	.548			
Total	50	8.50	1.432			

(After 6 Month of Treatment)

Site Groups	N	Mean VAS	Std. Deviation	F Test	p value	6 Month Result
Ovary	21	1.00	0.837	1.051	0.381	Non-Significant
Uterus	8	1.25	.886			
Ovary + Fallopian tubes	10	1.20	0.789			
Peritoneum	3	0.33	.577			
Total	42	1.05	0.825			

Among Site Groups before Treatment the mean VAS is the highest at Uterus (9.22) and it shows the lowest score at Ovary (8.29). Based on the test, all the pair of sites a statistically non-significant ($P>0.05$).

While after 6 months of Treatment, the difference among the four groups was found to be statistically non-significant ($P>0.05$). The mean VAS is the highest at Uterus (1.25) and it shows the lowest score at Peritoneum (0.33).

Table 17
Comparison of Mean VAS among Prior Treatment Groups
(Before Treatment)

Prior Treatment	N	Mean VAS	Std. Deviation	F Test	P value	Pre- Result
OCP	14	8.500	1.506	0.432	0.652	Non-Significant
Surgery	9	8.889	0.782			
None	27	8.370	1.573			
Total	50	8.500	1.432			

(After 6 Months Treatment)

Prior Treatment	N	Mean VAS	Std. Deviation	F Test	P value	6 Month Result
OCP	14	1.214	0.802	1.145	0.329	Non-Significant
Surgery	7	1.286	0.756			
None	21	0.857	0.854			
Total	42	1.048	0.825			

The comparison of mean VAS (%) of patients among Prior Treatment Groups, which was found to be statistically non-significant ($P>0.05$), showing that mean VAS (%) of patients do not change significantly with Prior Treatment Groups. The mean VAS is the highest for Sx treatment (8.889).

While among Prior Treatment Groups after 6 months of treatment was found to be statistically non-significant ($P>0.05$), showing that mean VAS (%) of patients do not change significantly with Prior Treatment Groups. The mean VAS is the highest for Sx (1.286).

Table 18

**Comparison of Mean VAS among Previous Disease Group
(Before Treatment)**

Previous Disease Groups	N	Mean VAS	Std. Deviation	F Test	P value	PRE-Result
Adenomyosis	12	8.50	1.567	0.768	0.518	Non-Significant
Fibroid	12	8.75	.866			
PCOS	4	7.50	2.380			
Others	22	8.55	1.438			
Total	50	8.50	1.432			

(After 6 Months Treatment)

Previous DS Groups	N	Mean VAS	Std. Deviation	F Test	P value	6 Month Result
Adenomyosis	11	1.00	0.894	2.221	0.101	Non-Significant
Fibroid	8	1.63	.744			
PCOS	3	1.33	0.577			
Others	20	0.80	.768			
Total	42	1.05	0.825			

The difference among the four groups was found to be statistically non-significant ($P > 0.05$), showing that mean VAS (%) of patients do not change significantly with different DS groups. The mean VAS is the highest for FIBROID (8.75) and it shows the lowest score for PCOS (7.50).

While the patients among Previous DS Groups after 6 months of treatment was found to be statistically non-significant ($P > 0.05$), The mean VAS is the highest for FIBROID (1.63) and it shows the lowest score for Other (0.80).

**Table 19
Comparison of Mean VAS among Duration of Disease Groups
(Before Treatment)**

Duration of Disease	N	Mean VAS	Std. Deviation	F Test	P value	Pre – Result
< 1 Year	8	7.75	1.581	1.283	0.291	Non-Significant
1-3 Years	18	8.83	.786			
3-5 Years	17	8.35	1.967			
≥ 5 Years	7	8.86	.690			
Total	50	8.50	1.432			

(After 6 Months Treatment)

Duration of Disease	N	Mean VAS	Std. Deviation	F Test	P value	6 Month Result
< 1 Year	7	1.29	0.951	0.468	0.707	Non-Significant
1-3 Years	13	1.15	.987			
3-5 Years	15	0.93	0.704			
≥ 5 Years	7	0.86	.690			
Total	42	1.05	0.825			

The comparison of mean VAS (%) of patients among Duration of Disease Groups before treatment was found to be statistically non-significant ($P>0.05$), showing that mean VAS (%) of patients do not change significantly with different Duration of Disease groups. The mean VAS is the highest for ≥ 5 Years (8.86).

While the patients among Duration of Disease Groups after 6 months of treatment was found to be statistically non-significant ($P>0.05$), The mean VAS is the highest for < 1 Year (1.29).

Table 20
Pre and Post treatment Comparison of Mean VAS score

Variable	Time Interval	N	Mean VAS	Std. Deviation	T Test	P Value	Result
All Patients	Pre treatment	50	8.50	1.432	14.001	0.000	Sig
	After 1 Month	50	5.08	1.259			
	Pre treatment	47	8.51	1.473	22.329	0.000	Sig
	After 3 Month	47	2.36	1.031			
	Pre treatment	42	8.48	1.550	27.431	0.000	Sig
	After 6 Month	42	1.05	.825			

The Pre and Post treatment comparison of all the patient's Mean VAS score at different follow-up durations was found, reduces significantly on all the follow-up time intervals as compare to Pre-treatment value ($P<0.05$)

The mean VAS value at Pre-treatment (8.48) reduces significantly to mean VAS value 5.08 after 1 month.

Table 21
Pre and Post treatment Comparison of Mean VAS score for Prior Treatments

Prior Treatment	Time Interval	N	Mean VAS	Std. Deviation	T Test	P Value	Result
Ocp	Pre treatment	14	8.50	1.506	15.768	0.000	Sig
	After 6 Month	14	1.21	.802			
Surgery	Pre treatment	7	9.00	0.816	41.828	0.000	Sig
	After 6 Month	7	1.29	.756			
None	Pre treatment	21	8.29	1.765	16.499	0.000	Sig
	After 6 Month	21	0.86	.854			

In case of OCP prior treatment patients the mean VAS score reduces significantly at 1 Month, 3 Month and 6 Month duration as compare to Pre VAS score ($P<0.05$). Same for prior treatment SX patients also mean VAS score shows reducing trend.

Table 22
Pre and Post treatment Comparison of Mean VAS score for Different Disease Site

Site	Time Interval	N	Mean VAS	Std. Deviation	T Test	P Value	Result																																
Ovary	Pre treatment	21	8.24	1.546	21.018	0.000	Sig																																
	After 6 Month	21	1.00	.837				Uterus	Pre treatment	8	9.25	1.035	14.111	0.000	Sig	After 6 Month	8	1.25	.886	Ovary + fallopian tube	Pre treatment	10	8.40	2.011	9.509	0.000	Sig	After 6 Month	10	1.20	.789	Peritoneum	Pre treatment	3	8.33	0.577	13.856	0.005	Sig
Uterus	Pre treatment	8	9.25	1.035	14.111	0.000	Sig																																
	After 6 Month	8	1.25	.886				Ovary + fallopian tube	Pre treatment	10	8.40	2.011	9.509	0.000	Sig	After 6 Month	10	1.20	.789	Peritoneum	Pre treatment	3	8.33	0.577	13.856	0.005	Sig	After 6 Month	3	0.33	.577								
Ovary + fallopian tube	Pre treatment	10	8.40	2.011	9.509	0.000	Sig																																
	After 6 Month	10	1.20	.789				Peritoneum	Pre treatment	3	8.33	0.577	13.856	0.005	Sig	After 6 Month	3	0.33	.577																				
Peritoneum	Pre treatment	3	8.33	0.577	13.856	0.005	Sig																																
	After 6 Month	3	0.33	.577																																			

Pre and post treatment comparison of Mean VAS score for diseases different durations for different Site of disease with Ovary Site, with uterus site, with ovary with fallopian tube site, the mean VAS score reduces significantly at 1 Month, 3 Month and 6 Month duration as compare to Pre VAS score ($P < 0.05$).

Table 23
Pre and Post treatment Comparison of Mean VAS score for Different Previous Disease

Previous DS	Time Interval	N	Mean VAS	Std. Deviation	T Test	P Value	Result																																
adenomyosis	Pre treatment	11	8.45	1.635	15.723	0.000	Sig																																
	After 6 Month	11	1.00	.894				Fibroid	Pre treatment	8	9.00	0.926	16.015	0.000	Sig	After 6 Month	8	1.63	.744	Pcos	Pre treatment	3	7.00	2.646	3.900	0.060	Sig	After 6 Month	3	1.33	.577	Other	Pre treatment	20	8.50	1.504	18.448	0.000	Sig
Fibroid	Pre treatment	8	9.00	0.926	16.015	0.000	Sig																																
	After 6 Month	8	1.63	.744				Pcos	Pre treatment	3	7.00	2.646	3.900	0.060	Sig	After 6 Month	3	1.33	.577	Other	Pre treatment	20	8.50	1.504	18.448	0.000	Sig	After 6 Month	20	0.80	.768								
Pcos	Pre treatment	3	7.00	2.646	3.900	0.060	Sig																																
	After 6 Month	3	1.33	.577				Other	Pre treatment	20	8.50	1.504	18.448	0.000	Sig	After 6 Month	20	0.80	.768																				
Other	Pre treatment	20	8.50	1.504	18.448	0.000	Sig																																
	After 6 Month	20	0.80	.768																																			

The pre-post comparison of Mean VAS score for patients with Previous DS at all the follow-ups durations, patients with Adenomyosis, fibroid, PCOS and other disease as previous Disease the mean VAS score reduces significantly.

Table 24
Pre and Post treatment Comparison of Mean VAS for Different Durations of Disease

Duration of Disease	Time Interval	N	Mean VAS	Std. Deviation	T Test	P Value	Result
Below one year	Pre treatment	7	7.57	1.618	13.266	0.000	Sig
	After 6 Month	7	1.29	.951			
1-3 years	Pre treatment	13	8.92	0.862	20.545	0.000	Sig
	After 6 Month	13	1.15	.987			
3-5 years	Pre treatment	15	8.33	2.093	12.173	0.000	Sig
	After 6 Month	15	0.93	.704			
≥ 5 Years	Pre treatment	7	8.86	0.690	25.923	0.000	Sig
	After 6 Month	7	0.86	.690			

The Above table shows the pre-post comparison of Mean VAS score for patients with different duration of disease at all the follow-ups reduces significantly.

RESULTS, OBSERVATIONS AND DISCUSSION

In our study, most of the women belonged to the age group of 31-50 yrs (72.2%), this is same as a study of Schindler AE^[29] (2011) in which majority (76.2%) of woman belong to 30-50years of age.

In our study majority of women are multiparous (Para 2 and more than P2) (68%) Nulliparous woman was 24%. This is same as in study done by Grandi G^[31] (2015) done in 34 women where 60% were multiparous.

In our study, 20% women received other hormonal treatment like OCPS and GnRH agonists, 4% patients were having surgery and 20% received only pain therapy. In the study Techatraisak K et al^[34] (2019), 514 patients had prior type of treatment, in which 179 (34%) women received hormonal treatment and 87%(449) received surgical treatment of endometriosis and 17.5% of women received only pain therapy.

In our study 24% were previous history having endometriosis. On the other hand, Techatraisak K et al^[34] (2019) all patients 864/864 100% patients had previous history of endometriosis.

In our study most of patients were who had symptoms since 3-5 years are 44% and then 38% patients were symptomatic since 1-2 years.

In the study Techatraisak K et al^[34] (2019), endometriosis was diagnosed within 1 year before initial visit. In the majority of patients (n=644/864) 74.5% only less than half of women reported onset of first symptom.

Most common symptom of endometriosis was chronic pelvic pain (100%), dysmenorrhea (50%), 42% heavy bleeding, 10% women had infertility. In the study Caruso S. et al^[33] (2018) most common symptom was chronic pelvic pain in 100%(n=51) women, dysmenorrhea n=50(78.4%) and dyspareunia n=38 (74.5%).

In the study Techatraisak K et al^[34] (2019) most common symptom of endometriosis was dysmenorrhea (n=684/865 ;79.1%) and chronic pelvic pain (n=279/865;32.3%), dyspareunia (5.9%).

In our study after 6 months, headache was 42% of patients followed by nausea and vomiting in 26% of patients and weight gain in 12% of patients.

In the study Strowitzki T.^[27] (2010) most common side effect was spotting (40%).

In the study Schindler AE^[29] (2011), the most common adverse effect was metrorrhagia (71.9%) followed by headache (18.5%) and constipation (10.4).

In our study n=15(30%) of women were diagnosed laparoscopically and by USG (TAS/TVS) n=35(70%) was diagnosed.

In the study Techatrasak K et al^[34] (2019) N=616(71.2%) women were diagnosed surgically or laparoscopically and n=247(28.6%) were diagnosed clinically.

In our study, 50% were not having concomitant disease while 30% were having adenomyosis and 10% were having fibroid. While in the study of Techatrasak K et al^[34] (2019) out of 865 patients 146 patients had 1 concomitant disease in which adenomyosis was most concomitant disease (31.5% n=46/146) and then uterine leiomyoma (n=39/146; 26.7%).

In our study highest percentage of patient (n=30/50) 60% had single lesion while 40% (n=20/50) were having multi endometriotic lesion.

Tab Dinogest has also been found to be cost effective and to increase the quality of life (QUL). The quality of women treated with dinogest is markedly improved high level of patient satisfaction very satisfied patients - 50%, satisfied (30%) and not satisfied patients (14%) due to persistence of heavy bleeding and chronic pelvic pain.

In the study of Kohler G^[28] (2010) after three months of use of dinogest 57.5% patients were satisfied. At the end of six months 92.5% patients were more satisfied and whereas 7.4 % patients were not completely satisfied due to side effects.

In the study Vercellini P^[32] (2016) done on 180 patients higher proportion 76.5% of patients were satisfied with dinogest.

In the study of Techatrasak K et al^[34] (2019) large proportion of patient 66% (n=322/488) were satisfied with dinogest.

In our study, 52% had ovarian endometriotic cyst, 15% had uterus and peritoneum deposit. In the study Techatrasak K et al^[34] (2019) (n=640/865) 88.4% were having ovarian endometriosis and 39% had other pelvic organ and extra pelvic endometriosis were only 2.9%.

In our study, highest percentage of patients 42% were not having any previous disease. 22% were had adenomyosis and fibroid was previous disease in 16% of women and 6% women were having PCOS and endometriotic polyp.

In Techatrasak K et al^[34] (2019) out of 865 women only 141 women were had any previous disease in which uterine leiomyoma was (n=69/141) 48.9% women, N=36/141 (25.5%) were had endometrial polyp.

In our study 60% (n=30/50) wanted to continue drug while an equal percent 20% did not want it and wanted other drugs. In the study Schindler AE^[117] (2011) about 60% of women want to continue drug. In the study of Techatrasak K et al^[34] (2019) majority of patients continued treatment with dinogest (n=430/488) 88.1% after 6 month.

Finally, our study concluded that, Dienogest seems to be effective for the treatment of pain and bleeding abnormalities, associated with endometriosis.

A good satisfaction score and compliance are found, so dienogest might be an effective therapeutic option for the long-term management of Endometriosis. It is also effective in the patients with fibroid, adenomyosis, polyp, and PID.

Dianogest is a safe, effective and first line treatment for endometriosis. Due to the side effects of dianogest, some of the women experience change in menstrual pattern. Counseling plays an important role in continuation of drug dianogest.

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