RESULTS

A total (300) cases were evaluated to find a relation between BMI and endometrial thickness.

Table (3) Clinical data of study group :

	Mean±SD	Range
Age (years)	59.95±3.73	55 - 65 years
Body Mass Index (Kg/m^2)	28.74 ±6	21.2 – 46.7 Kg/m^2
Post menopausal Duration (Years)	9.95 ±3.73	5-15 years
Endometrial Thickness (mm)	5.85±0.640	3 - 8 mm
Parity	3.9± 2	1-8 offsprings

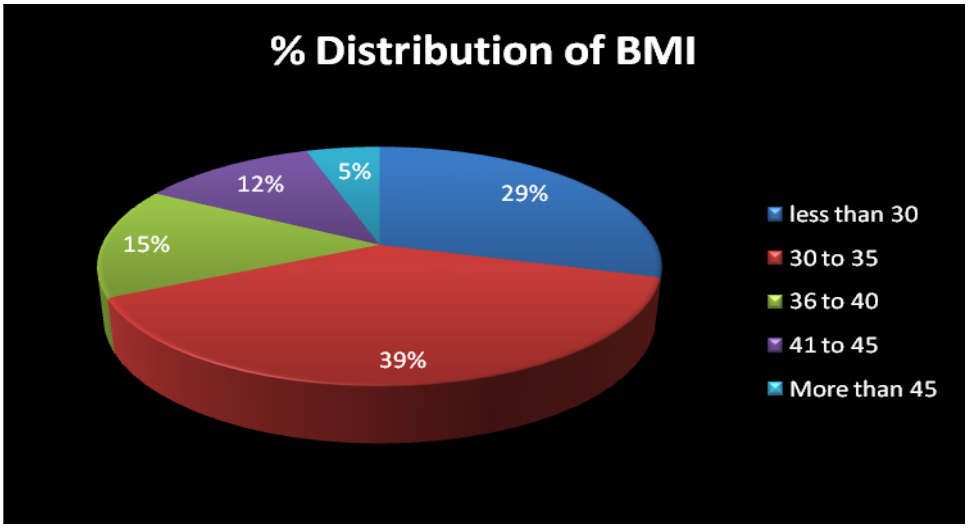
Table(4)Means and standard deviation of endometrial thickness and BMI:

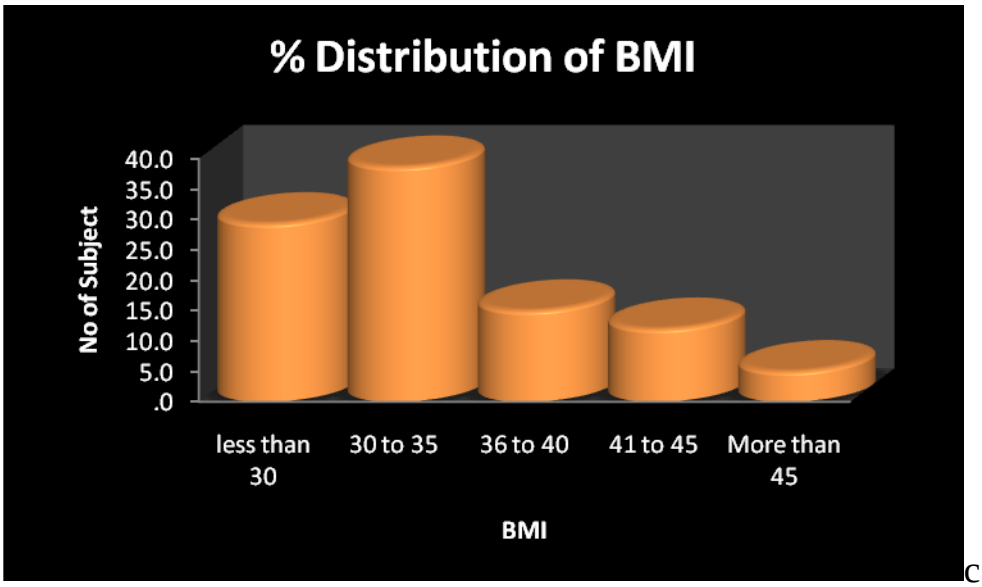
Endometrial thickness / BMI			Mean ± SD	t	P
I-	<25	n=13	3.66 ± 0.71		
II-	25 – 30	n=44	3.45 ± 0.34	t1= 1.03	>0.05
III-	30- 35	n=143	4.4 ± 0.47	t2=3.69	<0.05
IV-	>35	n=100	5.78 ± 0.78	t3=10.1	<0.001

t1= group I versus group II.

t2= group I versus group III.

t3= group I versus group IV





C

Fig(14): Distribution of BMI

Table(5) Correlation coefficient , r, between Endometrial thickness and BMI :

Endometrial thickness	r	p
BMI	0.841	<0.001

To find a significance ,we used Chi square test.

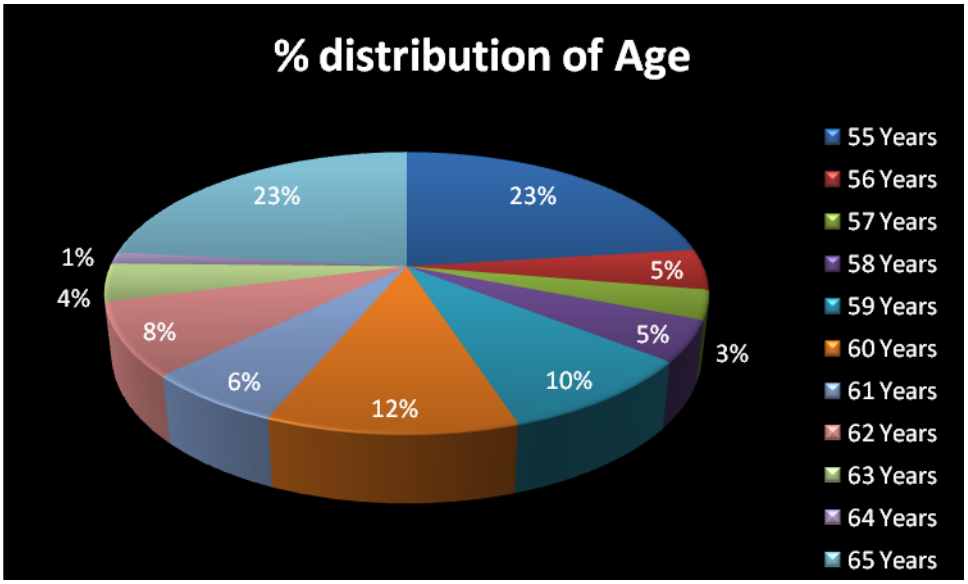
Chi square = 0.841.

$p < 0.001$.

So, high significance i.e; there is positive correlation between Endometrial thickness and Body Mass Index.

Table(6)Mean+SD of endometrial thickness according to age :

Endometrial thickness / Age	Mean ± SD	t	P
55-60 (n=174)	4.94 ± 0.9	-0.224	<0.01
60-65 (n=126)	4.55 ± 1.01	-0.224	<0.01



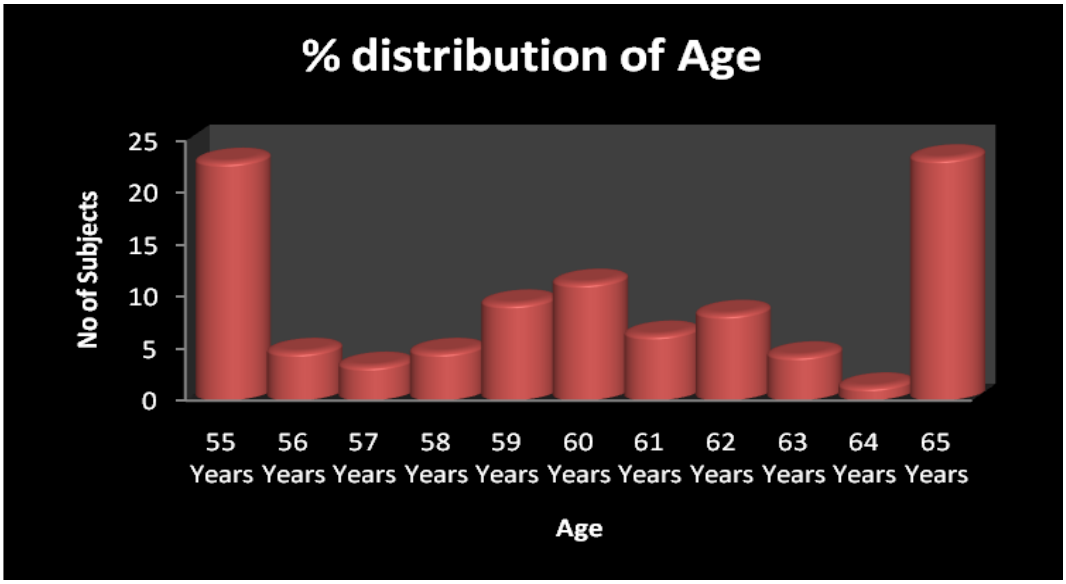


Fig (15): Distribution of age in the selected sample

Table(7)Correlation coefficient , r, between Endometrial thickness and Age:

Endometrial thickness	r	P
Age	-0.224	<0.05

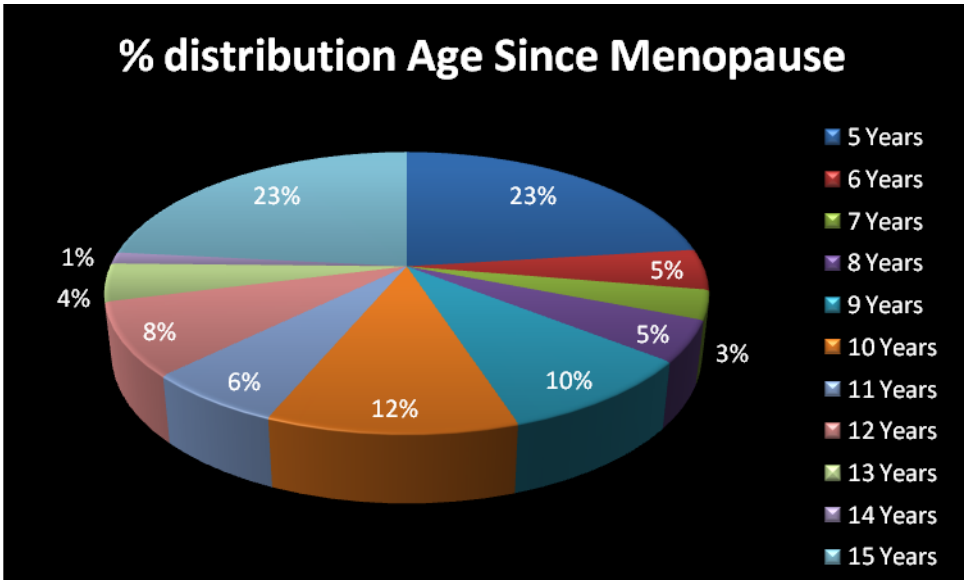
Chi square = -0.224 .

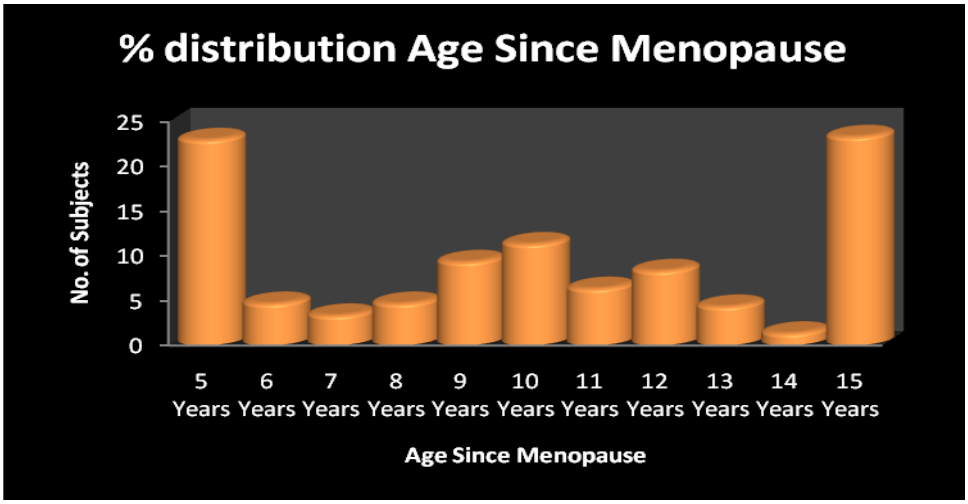
$p < 0.05$.

So, significant i.e; there is negative correlation was found between Endometrial thickness and Age.

Table(8)Mean+SD of endometrial thickness according to years since menopause:

Endometrial thickness / Years since menopause	Mean ± SD	t	P
5-10 (n=174)	4.96 ± 1.02	-2.84	<0.01
10-15 (n=126)	4.56 ± 1	-2.84	<0.01





Fig(16) Distribution of age since menopause

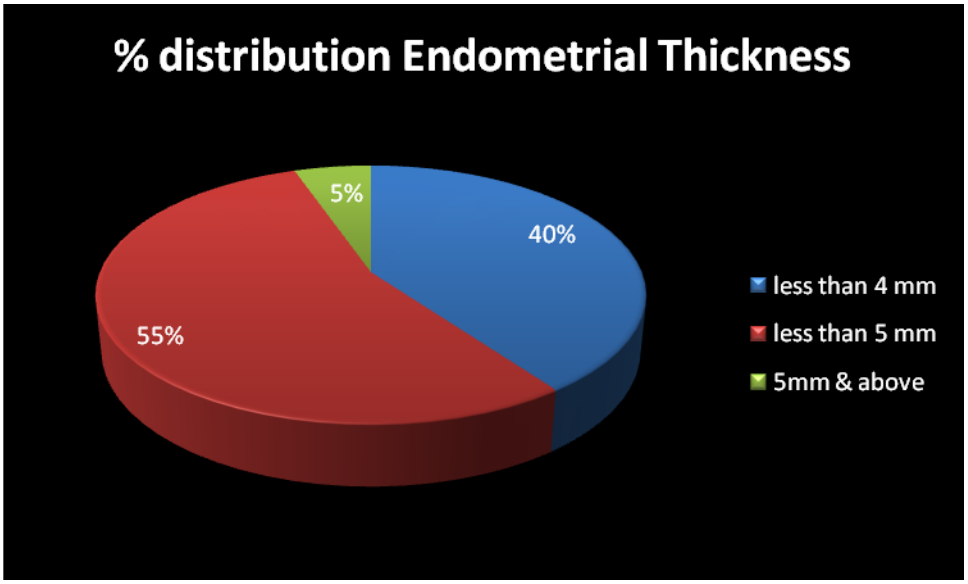
Table(9)Correlation coefficient , r, between Endometrial thickness and Years since menopause:

Endometrial thickness	r	P
Years since menopause	-2.84	<0.01

Chi square = -2.84.

$p < 0.01$.

So, highly significant i.e; there is negative correlation was found between Endometrial thickness and Years since menopause.



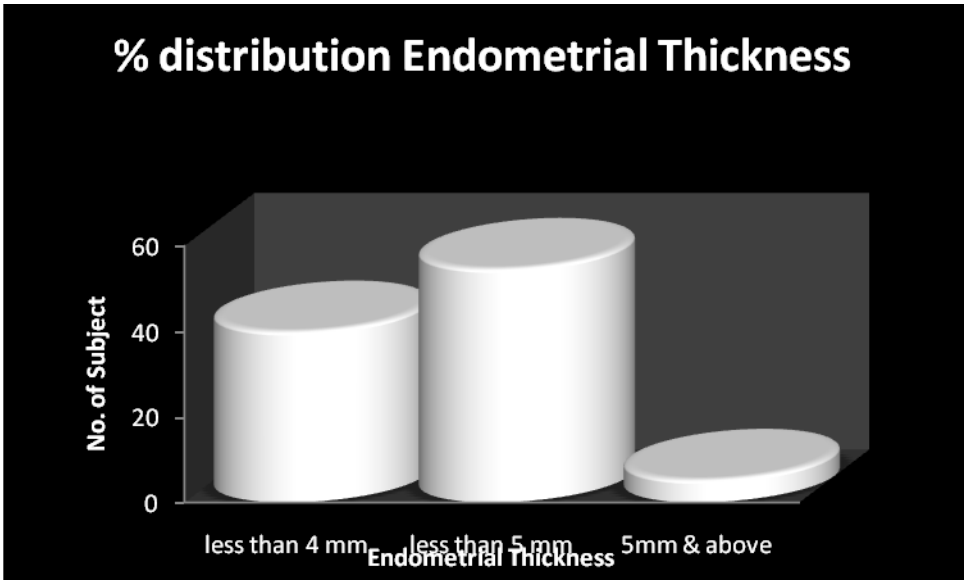


Fig (17): Distribution of endometrial thickness

Table(10)Distribution of endometrial thickness and histopathalogical findings:

Endometrial thickness / Histopathalogical findings	Out of 12 Cases	%	Mean ±SD
Atrophic	10	83.3	5.85±0.75
Chronic endometritis	1	8.33	6.8
Endometrial Polyp	1	8.33	7.3

12 cases in this study had endometrial thickness more than 5mm to whom endometrial sampling was performed with the following results, 10 cases had atrophic Endometrium, one case showed Endometrial Polyp(Endometrial thickness =7.3, BMI =45) and only one case revealed a picture of Chronic endometritis (Endometrial thickness =6.8, BMI =39.7).

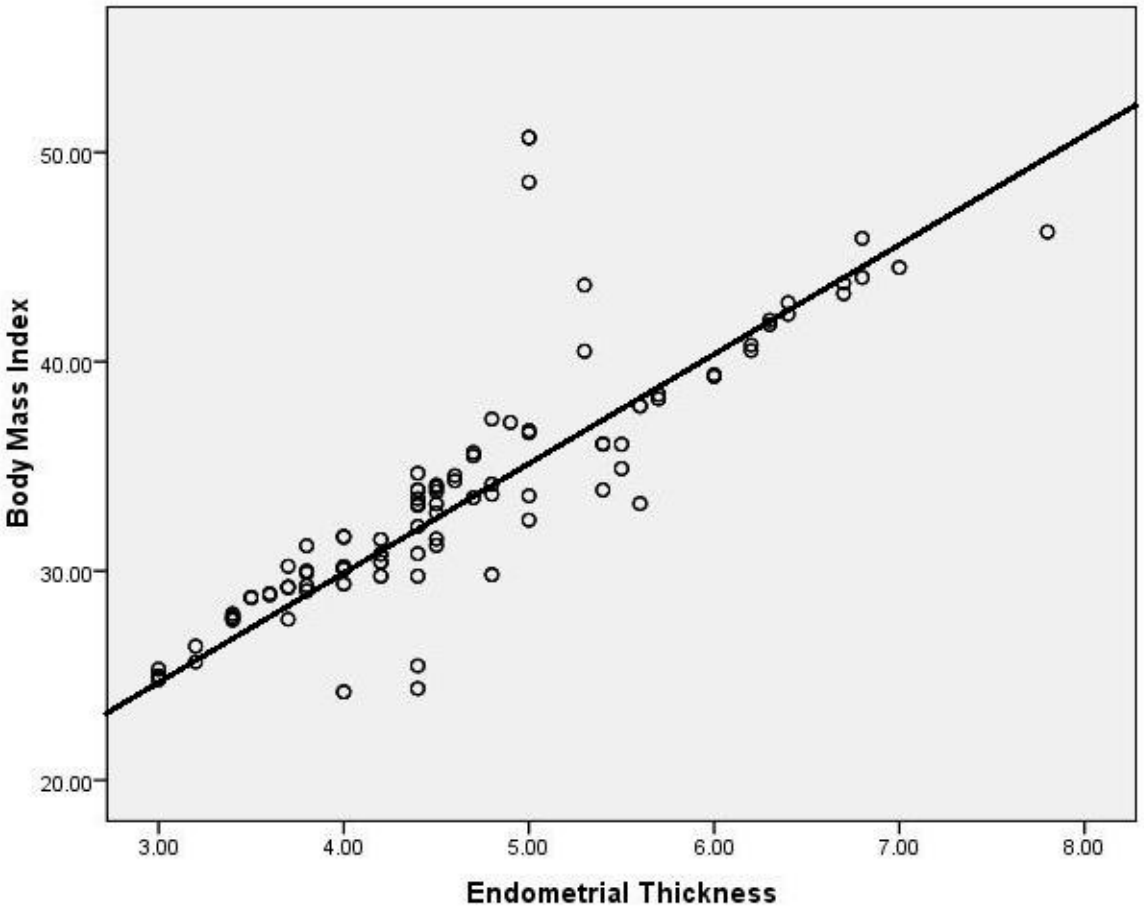


Fig (18): Scatter plot showing the relationship between BMI & endometrial thickness

Case (1):

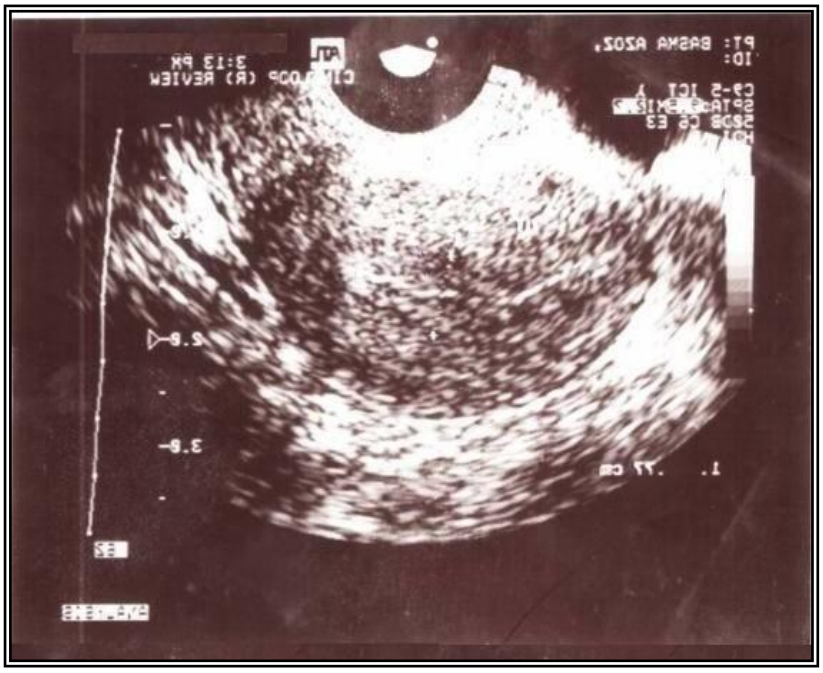


Fig. (19): *U/S picture of post menopausal female aged 64 years old ,BMI=24.5 showing thin endometrium measured 3.8 mm.*

Case (154):

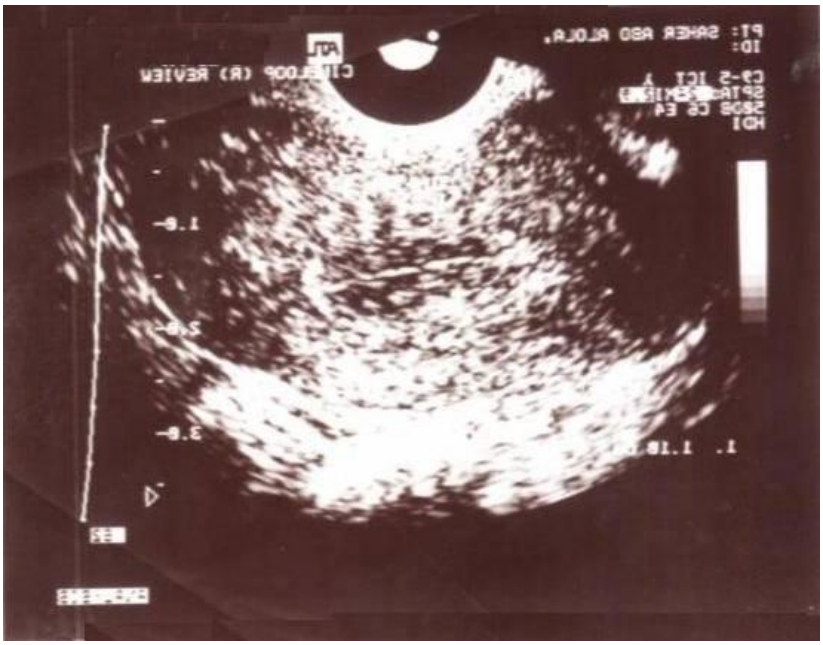


Fig. (20): ***U/S picture of post menopausal female aged 59 years old,BMI=25.5 showing endometrial thickness 4.8 mm***

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Case (188)*:*

Fig.(21.a): *Transvaginal U/S picture of 56 years old postmenopausal female with BMI =34 .2 showing endometrial thickness about 6 mm .*

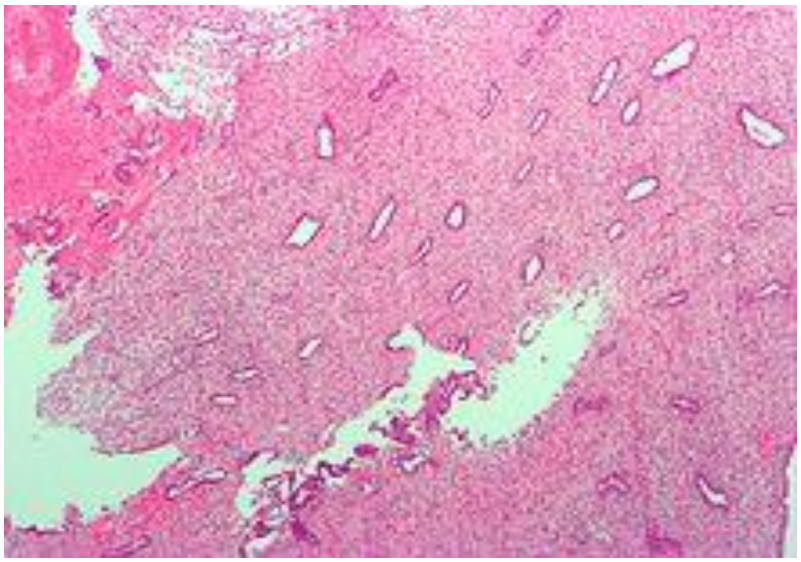

Fig. (21.b): *Histopathology of the same case showing atrophic endometrium .*

Case (60) *:*

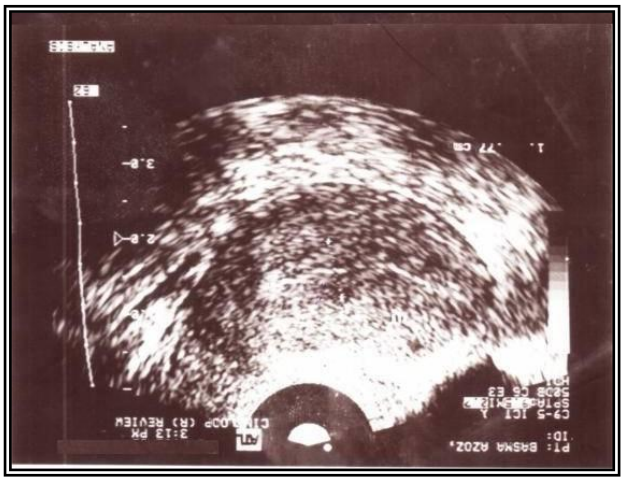

Fig. (22.a) *Transvaginal U/S picture of 59 years old postmenopausal female with BMI =40 showing endometrial thickness about 5.7 mm .*

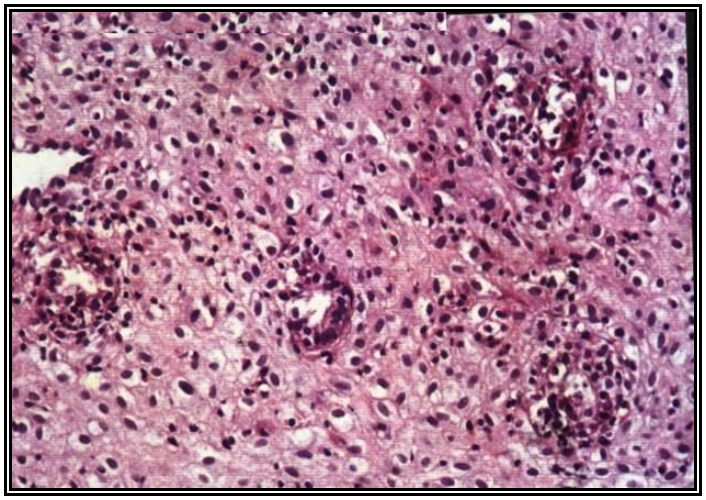

Fig. (22.b) *Histopathology of the same case showing atrophic endometrium.*

Case (220):

Fig. (23.a): *U/S picture of post menopausal female aged 60 years old,BMI=45 showing thick endometrium about 7.3 mm.*

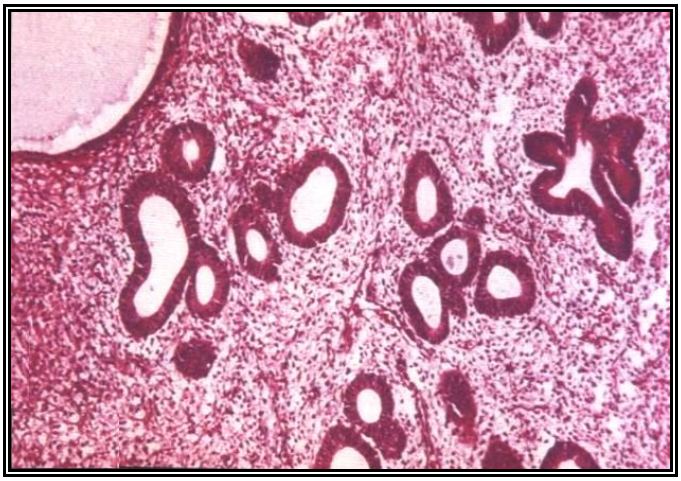

Fig. (23.b): *Histopathology of same case showing endometrial Polyp with endometrial glands surrounded by fibrotic stroma containing prominent hyalinized arterioles.*

Case (282) :

Fig. (24.a)*: U/S picture of post menopausal female aged 57 years old ,BMI =32.7 showing endometrial thickness = 6.8 mm.*

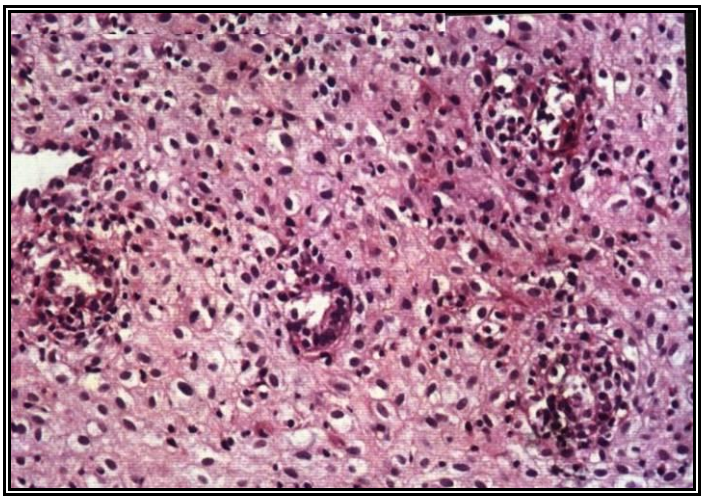

Fig. (24.b): *Histopathology of same case showing chronic endometritis show endometrial glands lined by columnar cells and surrounded by stromal cell, many lymphocytes and plasma cells.*