Results

Our study was carried out on 100 pregnant women who were divided in tow groups of patient. One group delivered preterm and other group at full term. Age, parity previous abortion, and previous preterm labour. Were comparable in both groups table (1).

Table (3): Demographic and pregnancy characteristics in both group.

		Preterm group		Full term group		P
		No.	%	No.	%	
Age	≤ 25	18	36	15	30	>0.05
	26-30	23	46	20	40	
	31-35	7	14	8	16	
	36-40	2	4	7	14	
Parity	Primigravida	20	40	16	32	>0.05
	P1	17	34	10	20	
	P2	8	16	18	36	
	≥ p3	5	10	6	12	
Previous abortion		18	36	15	30	>0.05
Previous preterm labour		12	24	8	16	>0.05

In preterm group 33pt out of 50 pt had B.V (66%) while in full term group 24 pt out of 50 pt had B.V (48%) so the incidence of B.V in our study is significantly more in preterm group than full term group (table 3).

Table (4): Incidence of B.V in full term and preterm group

	Preterm group		**Full term group**		*** P.value**
	No	**%**	**No**	**%**	
Number of +ve cases	33	66	24	48	< 0.05

Symptom of B.V including fishy odour, itching and may be dysureia. In preterm group only 23 patient out of 33 cases with B.V complained of symptoms of B.V representing 69.7% while in full term group only 9 patient out of 24 case with B.V complained of symptoms of B.V. (Table 5)

* it had clinical significant and statistically significant by using Z test at level of 1.67 but by chi square test it nearly significant > 0.7 because of small sample size

Table (5): Symptomatic and Asymptomatic cases in both group with positive B.V

	Positive cases of B.V in preterm gr (n=33)		Positive cases of B.V in full term gr (n=24)		P
	No.	%	No.	%	
symptomatic	23	69.7	9	37.5	>0.05
asymptomatic	10	30.3	15	62.5	>0.05

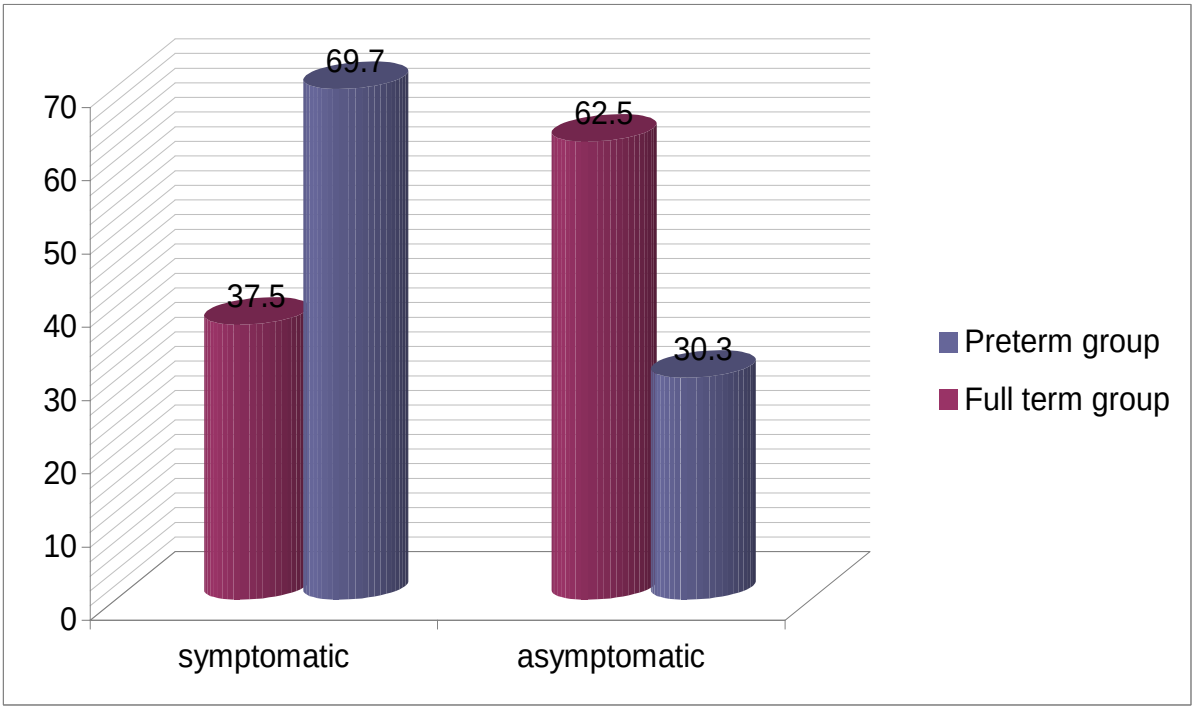

Fig. (1): Incidence of B.V symptoms in both groups

By using the Nugent score ***(Nugent et al., 1991)*** new scoring system (0-10)for Gram stained vaginal smears , the 50 women of (preterm group) were divided into 14 normal women (28%) with a score between (0-3) 3 women (6%) with intermediate score between (4-6) and 33 women having bacterial vignosis (66%) with a score between (7-10) while in 50 women of (full term group) 20 women (40%) were normal, 6 women (12%) were intermediate, and 24 women (48%) having bacterial vignosis. So the prevalence of B.V in our study 66% in preterm group and 48% in full term group (table 6).

Table (6): Prevalence of B.V according to Gram staine diagnosis in both group (by using Nugent Score)

Gram stained diagnosis						
	Normal (0-3)		**Intermediate (4-6)**		**B.V (7-10)**	
	N	**%**	**N**	**%**	**N**	**%**
Preterm group	14	28%	3	6	33	66%
Full term	20	40%	6	12%	24	48%

Amsel's criteria had been used for diagnosis of B.V in both group. And conformed by Gram stain

Amsel's criteria are :-

1. Vaginal PH > 4.5
2. Thin homogenous vaginal discharge
3. Characteristic fishy odour when 10% KOH is added to vaginal secretion
4. The presence of clue cells on wet mount test

Amsel's (1983) stated that presence of three of these criteria is diagnostic of B.V.

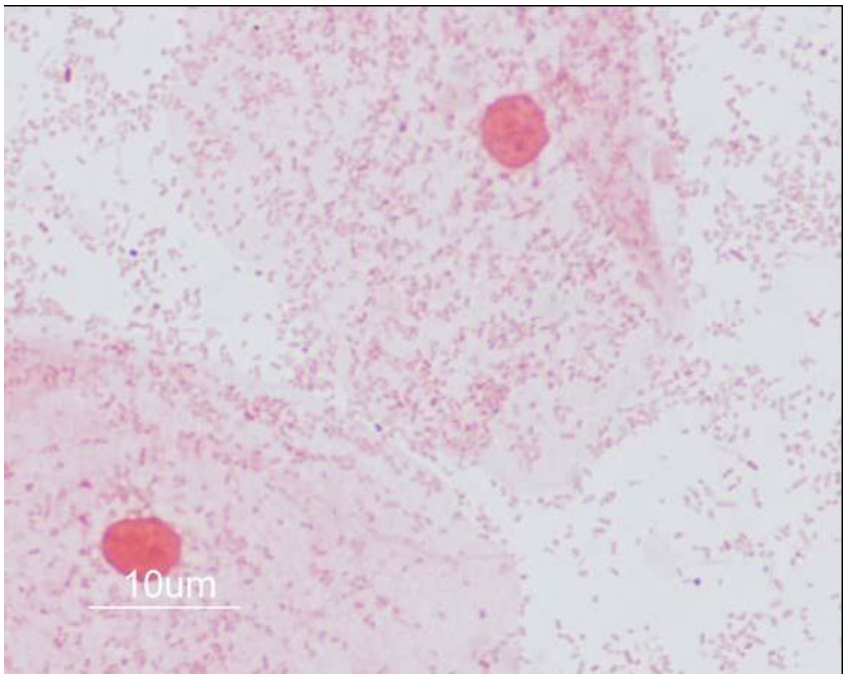

Fig (2): This figur show clu cells in wet mount test

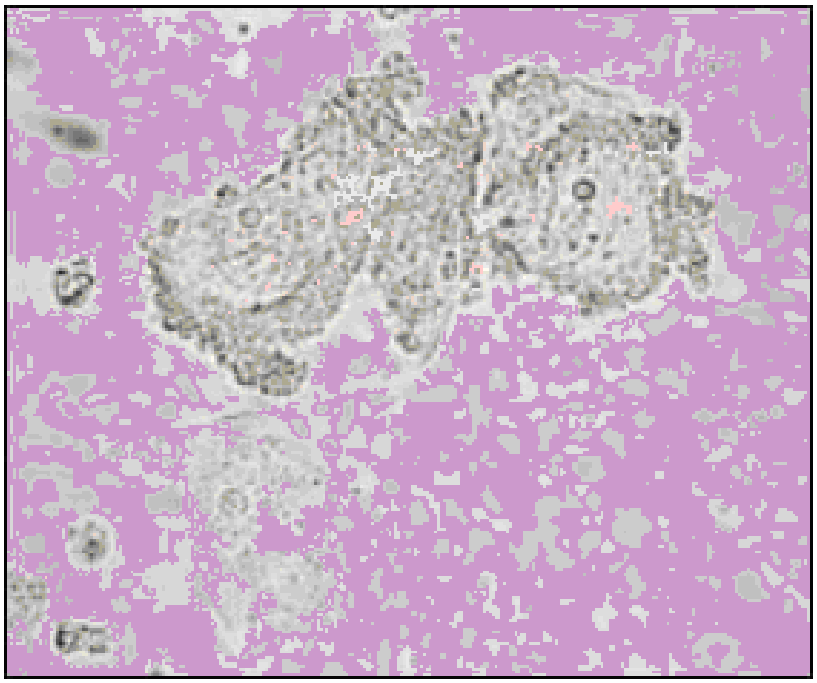

Fig (3): Gram stain of vaginal discharge from a patient with bacterial vaginosis shows the borders of an epithelial cell obscured by small, Gram variable coccobacilli

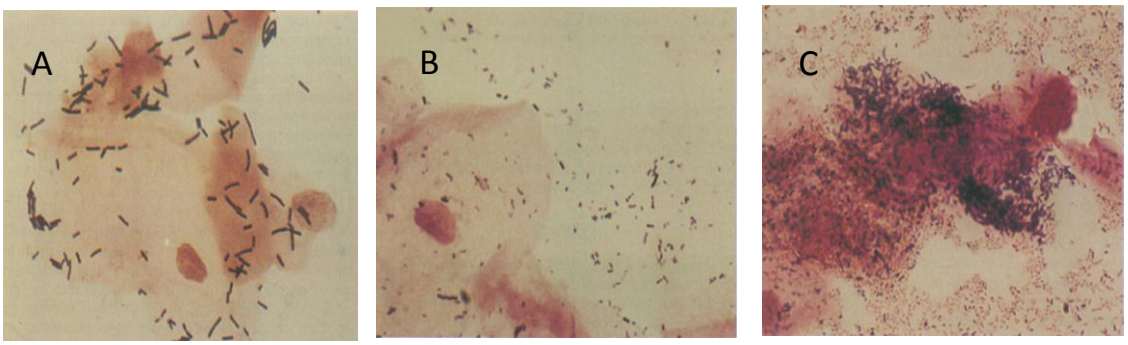

Figure (4): Different vaginal morphotypes (A) Normal (B) inter mediat B.V (C) BV (*Nugent et al. 1991*).

In preterm group all 4 criteria were found in 12 patient out of 33, (vaginal PH > 4.5, thin discharge and fishy odour) were found in 3 patient only, (PH > 4.5 fishy, odour and clue cell) were found in 12 patient and (pH > 4.5, thin discharge clue cell) were found in 6 patient.

In full term group all 4 criteria were found in 10 patient, (pH > 4.5, thin discharge and fishy odour) were positive in 2 patient (pH > 4.5, fishy odour and clue cell) were positive in 8 patient and (pH > 4.5, vaginal discharge and clue cell) were positive in 4 patient (table 2).

Table (7): Amsel's criteria in preterm and full term group

Amsel's criteria	Preterm group		Full term	
All 4 criteria	12	36%	10	41.6%
Vaginal pH > 4.5, thin discharge and fishy odour	3	10%	2	8%
pH > 4.5, fishy odour and clue cell	12	36%	8	34%
pH > 4.5, thin discharge and clue cell	6	18%	4	16%

The most objective method of detecting clue cells is to observe the epithelial cells border which is relatively obscured by bacteria, the presence of clue cells on wet mount examination is single most reliable indicator of B.V with a sensitivity 97%, 94.5% and specificity 96%, 93% in preterm and full term group respectively (table 8).

Table (8): Demonstration of clue cell in saline smear to show sensitivity and specificity

Gram stains						
	Sensitivity	**Specificity**	**True+ve**	**True-ve**	**Flase+ve**	**Flase-ve**
+ve clue cells in preterm group	97%	94.5%	32	16	1	1
+ve clue cells in full term group	96%	93%	22	25	2	1

The incidence of pt who had B.V and complain from preterm labour is more in early G.A preterm labour in G.A $\geq$ 20 week – 24 week (75%), 25 week – 28 week (71%), 29 week - 32 week (68%) and 33 week - $\leq$ 37 week (60%) this was not statistically confirmed because of small No. of cases

Table (9): Incidence of B.V in preterm group according to gestational age

Groups	**N**	**BV**	**%**
$\geq$ 20 week -24 week	4	3	75%
25 week – 28 week	7	5	71%
29 week – 32 week	16	11	68%
33 week - $\leq$ 37 week	23	14	60%

The diagnosis of B.V by using of gram stain and Amsel's criteria have the same results so we can use Amsel's criteria only in diagnosis of B.V because it is simple not expensive and reliable methods (table 10).

Table (10): Comparison between gram stain and Amsel's criteria in diagnosis of B.V

	Gram stain		**Amsel's criteria**		P
Preterm	33	66%	33	66%	> 0.05
Full term	24	48%	24	48%	