RESULTS

Results are summarized in tables 1-12

Table and graph (1) : show % of +ve cases in male partners of female patients with proved trichomoniasis.

- It is quite evident from this table that :

From the 80 female patients examined, 32 (40%) were +ve while 48(60%) were -ve using wet mount preparation.

Male partners of these wet mount +ve cases were invited to be subjected to examination to assess the presence of Trichomonas vaginalis in their prostate, 20 male partners only came to be examined, 6(30%) of cases were +ve while 14(70%) were -ve using acridine orange (A/o) immunofluorescent stain.

Table (2) : Shows evaluation of symptomatology in the 20 male partners examined.

Two (10%) male partners had symptoms of prostatitis (frequency, dysuria, perineal pain, urethral discharge and painful erection), 7(35%) of male partners were infertile, while the majority of cases 11(55%) were asymtptomatic.

Table (3) : shows evaluation of symptomatology in the 6 male partners positive for trichomoniasis by (A/o) stain.

5(83.5%) male partners were asymptomatic, one partner was infertile (16.5%), while non of the trichomonas +ve partners was complaining of symptoms of prostatitis.

Table (4) : Shows comparison of symptoms in trichomonas +ve and -ve male partners using (A/o) stain.

Prostatitis was present in two of trichomonas -ve cases, while non of

trichomonas +ve cases had prostatitis symptoms ($P > 0.05$), infertility was present in 6 of trichomonas -ve cases, and in one of trichomonas +ve cases ($P > 0.05$). Asymptomatic cases were 6 of trichomonas -ve partners, and 5 of trichomonas +ve partners ($P > 0.05$).

Table (5) : Shows evaluation of symptomatology in the 4 male partners positive for trichomoniasis by Giemsa's stain.

- It is quite evident from this table that :

The four patients +ve for trichomoniasis by Giemsa's stain were asymptomatic (100%) and non of them was complaining of symptoms of prostatitis or infertility.

Table (6) : Shows comparison of symptoms in trichomonas +ve and -ve male partners using Giemsa's stain.

- From this table we might conclude that :

Prostatitis was present in two of trichomonas -ve cases, while non of trichomonas +ve cases had prostatitis symptoms ($P > 0.05$). Infertility was present in 7 of trichomonas -ve cases, and not present among cases +ve for trichomoniasis by Giemsa's stain ($P > 0.05$). Asymptomatic cases were 7 of trichomonas -ve partners, and 4 of trichomonas +ve partners ($P > 0.05$).

Table (7) : Shows evaluation of symptomatology in the 2 male partners positive for trichomoniasis by leishman's stain.

The two patients +ve for trichomoniasis by leishman's stain were asymptomatic (100%) and non of them was complaining of symptoms of prostatitis or infertility.

Table (8) : Shows comparison of symptoms in trichomonas +ve and -ve male partners using leishman's stain.

- It is quite evident that :

Prostatitis was present in two of trichomonas -ve cases, while non of trichomonas +ve cases had symptoms of prostatitis ($P > 0.05$). Infertility was present in 7 of trichomonas -ve cases, and not present in trichomoniasis +ve cases by leishman's stain ($P > 0.05$). Asymptomatic cases were 9 of trichomonas -ve partners, and 2 of trichomonas +ve partners ($P > 0.05$).

Table (9) : Shows clinical data that were associated with trichomoniasis in female patients.

Using (A/o) staining, 54 females were +ve for trichomoniasis, while 26 females were -ve. Yellow discharges were present in 23(42.5%) of the 54 cases, and in 6 (23%) of the 26 cases ($P < 0.05$). Abnormal vaginal odor was present in 27(50%) of Tr.vaginalis+ve cases, and in 10(38%) of Tr.vaginalis -ve cases ($P > 0.05$). Vulvar itching and burning were present in 32 (59%) of Tr.vaginalis +ve cases, and in 8(30%) of Tr.vaginalis -ve cases ($P < 0.05$). Dysuria and frequency were present in 10(18%) of Tr.vaginalis +ve cases, and in 3(11.5%) of Tr.vaginalis -ve cases ($P > 0.05$). Dyspareunia was present in 24(44%) of Tr.vaginalis +ve cases, and in 2(7.5%) of Tr.vaginalis -ve cases ($P < 0.05$). Vulvar erythema was present in 21 (38.8%) of Tr.vaginalis +ve cases, and in 8(30%) of Tr.vaginalis -ve cases ($P > 0.05$). Vaginal erythema was present in 14(26%) of Tr.vagnalis +ve cases, and in 2(7.5%) of Tr.vaginalis -ve cases ($P < 0.05$). Discharge was * purulent in 32 (59%) of Tr.vaginalis +ve cases, and in 6(32%) of Tr.vaginalis -ve cases ($P < 0.05$) * Homogeneous in 34(63%) of Tr.vaginalis +ve cases, and in 9 (34%) of Tr.vaginalis -ve cases ($P < 0.05$) * Frothy in 6(11%) of Tr.vaginalis +ve cases, and in non of Tr.vaginalis -ve cases ($P < 0.05$). Colpitis macularis (strawberry cervix) was seen by unaided eye in one (1.8%) of Tr.vaginalis

+ve cases, and not seen in Tr.vaginalis -ve cases ($P > 0.05$).

Table (10) : Shows comparison of four methods for detection of Tr.vaginalis infection in 80 female patients.

32(40%) of cases were +ve by wet mount preparation,while 48(60%) of cases were -ve. 39(48%) of cases were +ve, and 41(52%) of cases were -ve using Giemsa's staining of fixed smears. Using leishman's staining method 38(47%) of cases were +ve, while 42(53%) of cases were -ve, and using (A/o) staining of fixed films 54(67%) of cases were +ve and 26(33%) of cases were -ve.

Table (11) and graph (2) : Show efficacy of 3 methods for presence of Tr.vaginalis in prostatic secretions of 20 male partners of female patients with proved trichomoniasis.

4(20%) of cases were +ve , and 16(80%) of cases were -ve using Giemsa's staining of fixed films 2(10%) of cases were +ve by leishman's staining, while 18(90%) of cases were -ve . Using Acridine orange staining of fixed films 6(30%) of cases were +ve , and 14(70%) of cases were -ve.

Table (12) : Shows comparison of acridine orange stain with other methods used for Tr.vaginalis diagnosis in one hundred patients examined.

Comparing acridine orange (A/o) with wet mount 60% of cases were +ve using A/o and 40% of cases were +ve using wet mount ($P < 0.05$), and comparing (A/o) with Giemsa stain 60% and 43% of cases were +ve respectively ($P < 0.05$). While comparison of (A/o) and leishman's stain 60% versus 40% +ve cases were recorded ($P < 0.05$).

Table (1)

Percentage of +ve cases in male partners of female patients with proved trichomoniasis

Female patients examined	Wet mount		Male partners examined	Stained smears (A/O)	
	+ve (%)	-ve (%)		+ve (%)	-ve (%)
80	32(40%)	48 (60%)	20	6 (30%)	14 (70%)

Table (2)

Evaluation of symptomatology in the 20 male partners

Symptomatology	+ve	%
1- Prostatitis symptoms	2	10%
2- Infertility	7	35%
3- Asymptomatic	11	55%
Total	20	100%

Table (3)

Evaluation of symptomatology in the 6 male partners

+ve for trichomoniasis by (A/O) stain

Symptomatology	Total	+ve	%
1- Prostatitis symptoms	2	0	0
2- Infertility	7	1	16.5%
3- Asymptomatic	11	5	83.5%
Total.	20	6	100%

Table (4)

Comparison of symptoms in trichomonas

+ve and -ve male partners using (A/o) stain

Male partners investigated for trichomoniasis	Prostatitis n = 2	Infertility n = 7	Asymptomatic n = 11
- ve n = 14	2	6	6
+ ve n = 6	0	1	5
Z	0.975	1.125	1.667
P	>0.05 N.S	>0.05 N.S	>0.05 N.S

N.S. = Non significant

Table (5)

Evaluation of symptomatology in the four male partners +ve for trichomoniasis by Giemsa's stain

Symptomatology	Total	+ve	%
1-Prostatitis symptoms	2	0	0
2- Infertility	7	0	0
3- Asymptomatic	11	4	100%
Total	20	4	100%

Table (6)

Comparison of symptoms in trichomonas +ve and -ve male partners using Giemsa's stain

Male partners investigated for trichomoniasis	Prostatitis n = 2	Infertility n = 7	Asymptomatic n = 11
- ve n = 16	2	7	7
+ ve n = 4	0	0	4
Z	0.571	1.324	1.035
P	>0.05 N.S	>0.05 N.S	>0.05 N.S

Table (7)

Evaluation of symptomatology in the two male partners

+ve for trichomoniasis by Leishman's stain

Symptomatology	Total	+ve	%
1-Prostatitis symptoms	2	0	0
2- Infertility	7	0	0
3- Asymptomatic	11	2	100%
Total	20	2	100%

Table (8)

Comparison of symptoms in trichomonas

+ve and -ve male partners using Leishman's stain

Male partners investigated for trichomoniasis	Prostatitis n = 2	Infertility n = 7	Asymptomatic n = 11
- ve n = 18	2	7	9
+ ve n = 2	0	0	2
Z	0.718	1.196	1.4005
P	>0.05 N.S	>0.05 N.S	>0.05 N.S

Table (9) **Clinical symptoms and signs that were associated with trichomoniasis in female patients.**

Clinical data	Trichomonas vaginalis		Z	P	Significance
	Present (%) n=54	Absent (%) n=26			
Symptoms:-					
-Discharge(yellow)	23 (42.5%)	6 (23%)	2.031	<0.05	S.
-Abnormalvaginalodor	27 (50%)	10 (38%)	1.1009	>0.05	N.S.
-Vulvar itching & burning	32 (59%)	8 (30%)	2.376	<0.05	S.
-Dysuria & frequency	10 (18%)	3 (11.5%)	0.742	>0.05	N.S.
- Dyspareunia	24 (44%)	2 (7.5%)	3.630	<0.05	S.
Signs:-					
- Vulvar erythema	21 (38.8%)	8 (30%)	0.759	>0.05	N.S.
- Vaginal erythema	14 (26%)	2 (7.5%)	2.162	<0.05	S.
- Discharge					
* Purulent	32 (59%)	6 (23%)	2.935	<0.05	S.
* Homogenous	34 (63%)	9 (34%)	2.738	<0.05	S.
* Frothy	6 (11%)	0	3.251	<0.05	S.
- Colpitis macularis	1 (1.8%)	0	0.821	>0.05	N.S.

S. = Significant

Table (10)

Comparison of four methods for detection of Tr. vaginalis infection in 80 female patients

Method	Number of specimens (%)	
	Positive	Negative
Wet mount	32 (40%)	48 (60%)
Giemsa stain	39 (48%)	41 (52%)
Leishman stain	38 (47%)	42 (53%)
A/0 stain	54 (67%)	26 (33%)

Table (11)

Efficacy of Three methods for presence of Tr. vaginalis in prostatic secretions of 20 male partners of Female patients with proved trichomoniasis

Method	Number of specimens (%)	
	Positive	Negative
Giemsa stain	4 (20%)	16 (80%)
Leishman stain	2 (10%)	18 (90%)
A/0 stain	6 (30%)	14 (70%)

Table (12)

Comparison of Acridine orange with other methods used for diagnosis of Tr. vaginalis in 100 patients examined

Method	A/O	Wet mount	Giemsa	Leishman
Number (%) +ve	60 (60%)	32 (40%)	43 (43%)	40 (40%)
Z		2.725	2.215	2.529
P		< 0.05 S.	< 0.05 S.	< 0.05 S.

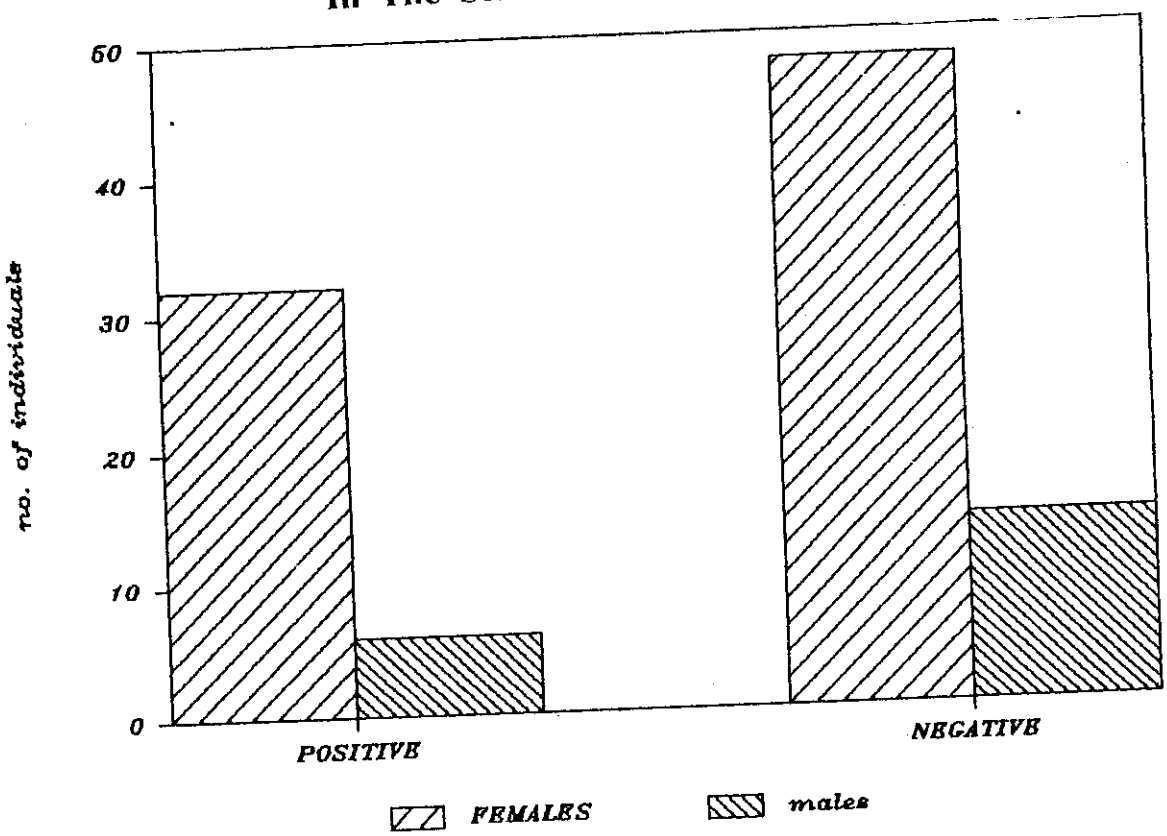
S. = Signficant

$$Z = \frac{P_1 - P_2}{\sqrt{P\left(1 - P\right)\frac{}{n_1} + \frac{P\left(1 - P\right)}{n_2}}}$$

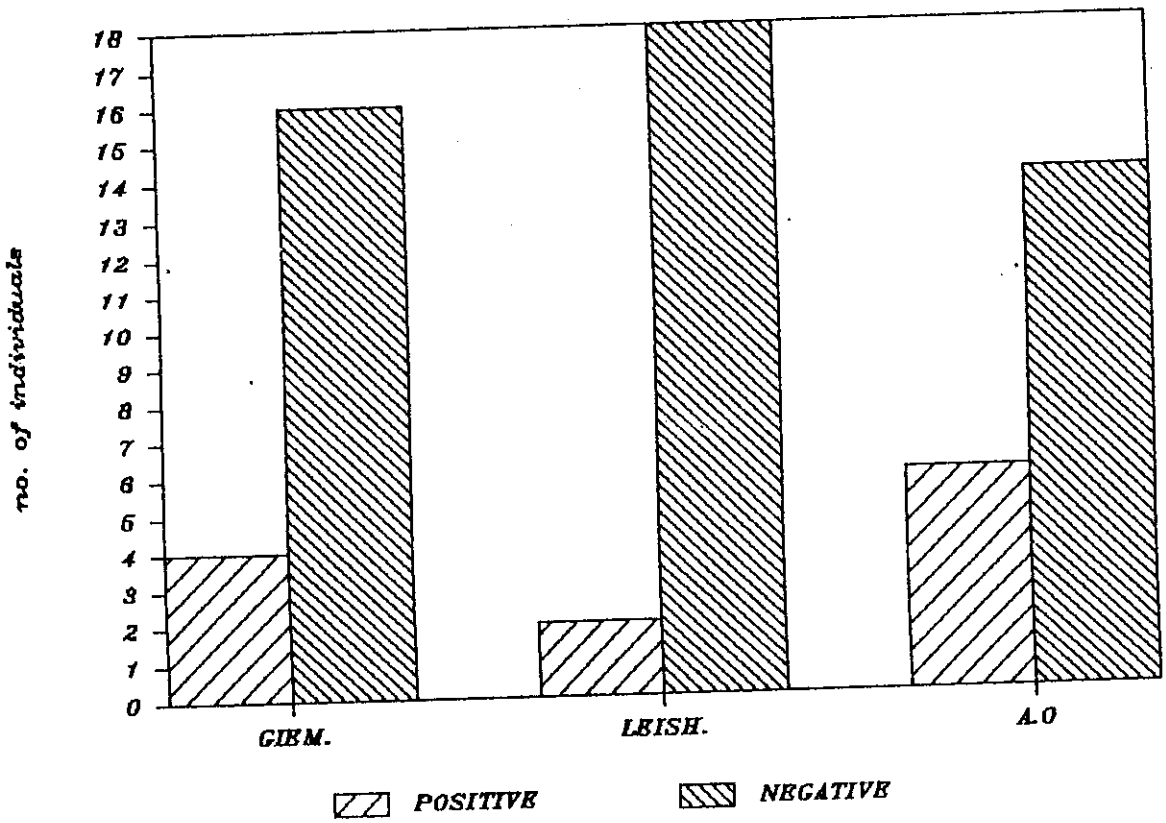
Z > 1.96 = Significant

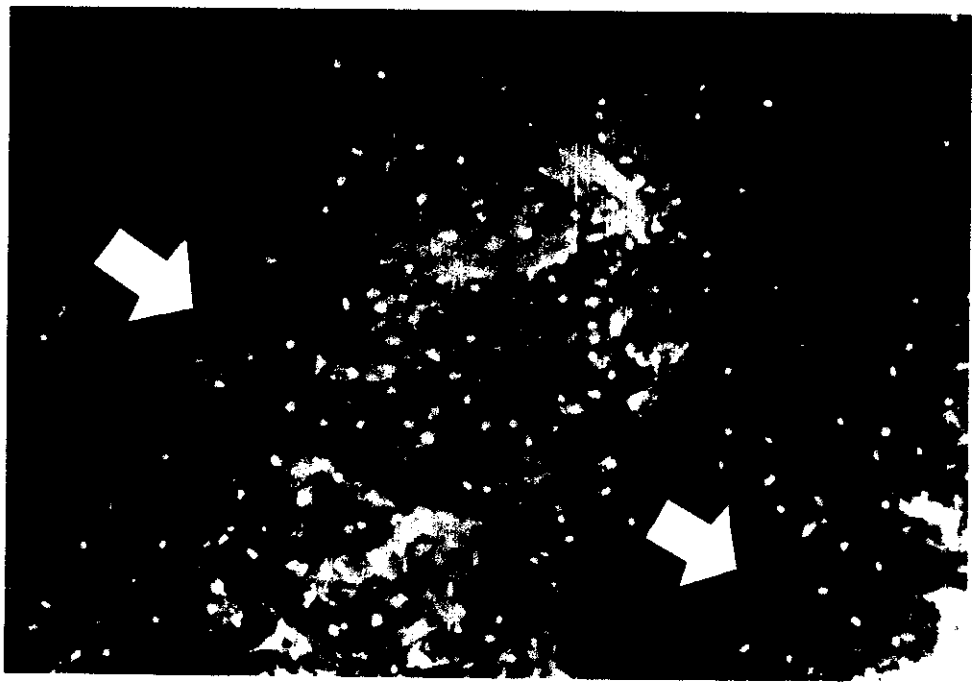
P = Significance

Graph. (1) : Trichomoniasis among Females & Male Partenars In The Studied Group

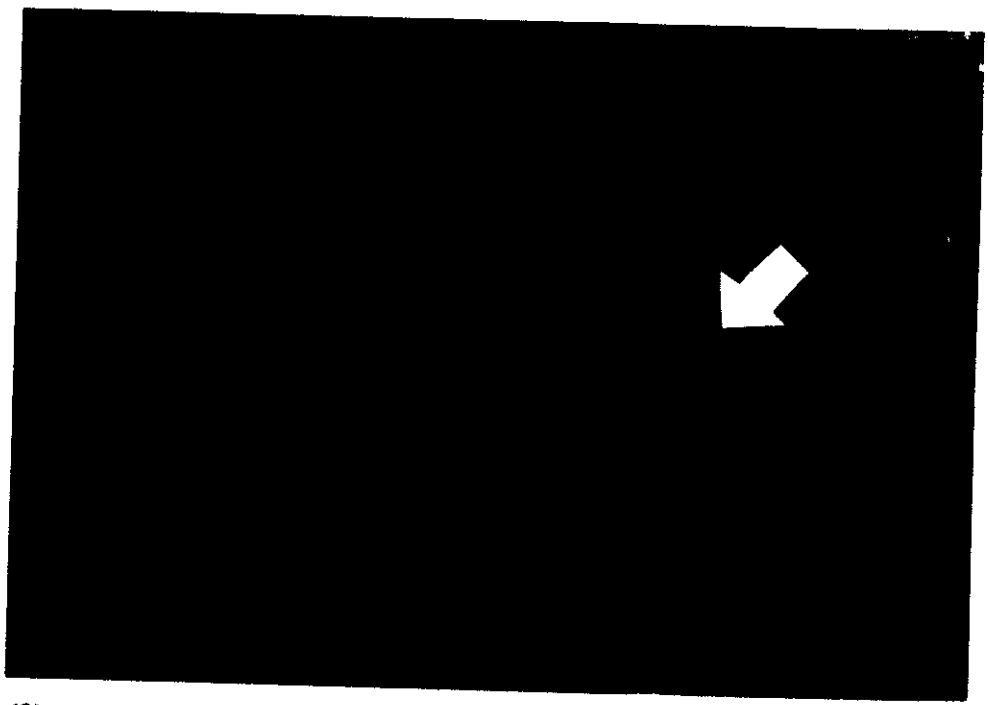


Graph. (2) : Efficacy of 3 Methods of Diagnosis in Male Partenars





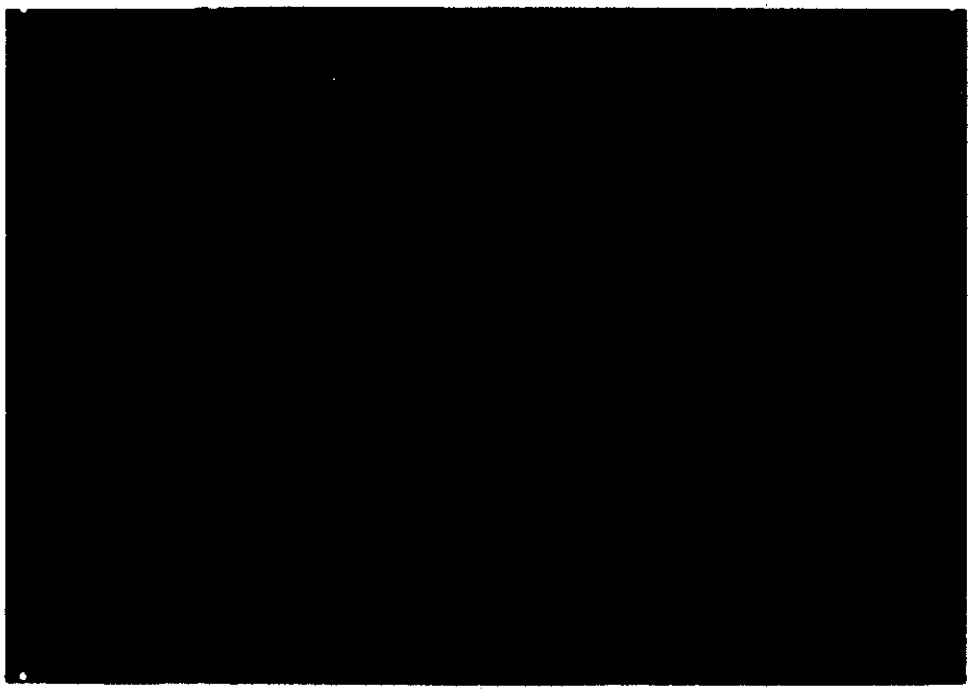
Picture (1) : - Epithelial cells are light yellow green with a bright yellow green nucleus as seen under fluorescence microscope using (A/o) stain (100x).



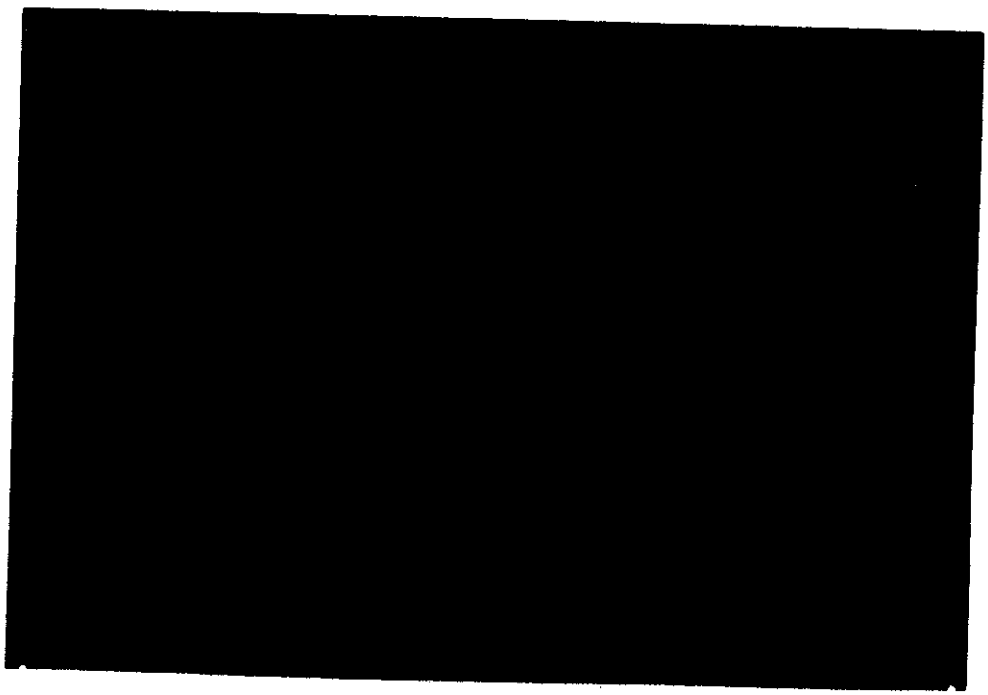
Picture (2) : Orange Bacilli arranged in pairs and in chains as seen under fluoresence microscope using (A/o) stain (100x).

Picture (3) : Tr.vaginalis organsim as seen under flurescence microscope (A/o) stain (100x) the colour of the organism (a) is dark orange with yellow nucleus. Epithelial cells (b) are light yellow green with bright yellow nucleus.

Picture (4) : Tr.vaginalis organism under flurescence microscope using (A/o) stain (100x). Multiple dark orange Tr.vaginalis trophozoites are seen in between yellow green epithelial cells.



Picture (5) : Tr.vaginalis trophazoite in a smear of vaginal secretions stained with Giemsa's stain. The undulating membrane extends about half-way along the cell (100x).



Picture (6) : Tr.vaginalis trophozoite stained with leishman's stain (100x) and attached to epithelial cell, the structures of the organism seem to be illdefined.