# RESULTS

## RESULTS

Out of 300 women from Kafr El-Sheikh area infested with urinary and/or intestinal schistosomiasis. Only 8 cases had lower genital tract schistosomiasis i.e. 2.66%.

Urine and stool analysis: The type of bilhariza infestation in the 300 women in our study is shown in table 1

Table 1: Urine and stool analysis (300 females).

| Infestation | No.of cases | Percent |
|---|---|---|
| Schistosoma haematobium (+ve urine) | 232 | 77.33 |
| Schistosoma mansoni (+ ve stool) | 42 | 14.00 |
| Schistosomoa haematobium and mansoni (+ve urine and stool) | 26 | 8.67 |

**Analysis of clinical data in the 300 women with urinary and/or intestinal schistosomiasis :**

Age is shown in Table 2 .

Table 2: Age (300 women).

| Age / years | No.of cases | Percent |
|---|---|---|
| Less than 20 | 33 | 11 |
| 20 - 30 | 148 | 49.33 |
| 31 - 40 | 81 | 27 |
| 40 + | 38 | 12.67 |
| Total | 300 | 100% |

Parity : This shows in Table 3 .

Table 3 : Parity (300 women).

| Parity | No.of cases | Percent |
|---|---|---|
| Nullipara | 20 | 6.66 |
| Para 1-4 | 191 | 63.67 |
| Para 5+ | 89 | 29.67 |
| Total | 300 | 100 % |

Gynaecological symptoms: This is shown in Table 4.

Table 4: Gynaecological symptoms (300 women), for which women came to gynaecological out patient clinics.

| Symptoms | No.of cases | Percent |
|---|---|---|
| 1. Leuchorrhoea | 90 | 30 |
| 2. Pruritis vulvae | 50 | 16.66 |
| 3. Pain : | | |
| a. Dysmenorrhoea | 72 | 24 |
| b. Lower abdominal | 51 | 17 |
| c. Backache | 45 | 15 |
| d. Dysparunia | 173 | 57.66 |
| e. Dysuria | 109 | 36.33 |
| 4. Infertility | 97 | 32.33 |
| a. Primary | 69 | 23 |
| b. Secondary | 28 | 9.33 |
| 5. Contact bleeding | 10 | 3.33 |
| 6. Irregular bleeding | 50 | 16.66 |
| Total | 300 | 249.30 |

* Some patients presented with more than one symptom.

This table shows that leuchorrhoea , dysparunia, dysuria and infertility were the commonest complains .

Gynaecological examination:

Vulva :

In 13 women among the 300 women studied, there were vulval lesions as shown in Table 5 .

Table 5. Vulval lesions (300 women).

| Clinical findings | No.of cases | Percent |
|---|---|---|
| Cauliflower mass | 3 | 1 |
| Polyp | 6 | 2 |
| Ulcer | 2 | 0.66 |
| Fistula | 1 | 0.33 |
| Leukoplakia | 1 | 0.33 |
| Total | 13 | 4.33 |

Biopsy taken from these 13 women with vulval lesions revealed two cases of vulval schistosomal. One was in the form of a polyp, grey in colour with rought surface, measuring 0.5 x 2.5 cm., with a pedicle and the surface was not ulcerated. Another case was in the form of a cauliflower, red mass, measuirng 3 x 4.5 cm. Non bilhariza polypi were 1 condyloma accuminata, one papilloma, 2 warts, one dermoid cyst.

Vagina :

In 8 women among the 300 women studied, vaginal lesions were found as presented in Table 6.

Table 6. Vaginal lesions (300 women).

| Clinical findings | No.of cases | Percent |
|---|---|---|
| Polyp | 4 | 1.34 |
| Ulcer | 1 | 0.33 |
| Fistula | 2 | 0.66 |
| Narrowing of vagina | 1 | 0.33 |
| Total | 8 | 2.66 |

Among lesions taken from the vagina in these 8 women, bilharzial lesion was detected in one case. The lesion was in the form of a polyp, measuring 3 x 5 cm., pinkish in colour, friable and attached to the anterior vaginal wall. Another case shows bilharzialiasis in a vaginal smear (it may be from the cervix as we taken smear from posterior fornix and ectocervix). Non-bilharzial polyp were 1 fibroma, 1 papilloma, 1 cyst.

Cervix:

119 women out of 300 studied women, cervical lesions were seen in table 7.

Table 7. Cervical lesions (300 women).

| Carvical findings | No.of cases | Percent |
|---|---|---|
| Cervical erosion | 85 | 71.44 |
| Chronic cervicitis | 20 | 16.80 |
| Cervical polyp | 14 | 11.76 |
| Total | 119 | 100 |

This table shows that there were 14 cases with cervical polyps. Histopathological study of lesions from these cases revealed 4 cases of schistosoma. Three cases were ectocervical and one case was endocervical. Non bilharzial polypi include : 5 adenomatous polypi, 3 fibromyomata, and 2 papillomata.

Uterus and adnexa:

Clinical examination of the uterus and adnexa is shown in table 8.

Table 8. Uterine and adnexal findings (300 women).

| Uterine and adnexal findings | No.of cases | Percent |
|---|---|---|
| Position of the uterus | | |
| (a) anteverted | 214 | 71.33 |
| (b) Retroverted | 86 | 28.67 |
| Uterine prolapse | 4 | 3.33 |
| Enlarged uterus | 113 | 44.33 |
| Thickened and enlarged tubes | 12 | 4.00 |
| Thickened and enlarged ovaries | 10 | 3.33 |

Table 9. Summaries the sites of schistosomal lesions found in the lower genital tract in the 300 women examined.

Table 9: Sites of schistosomal lesions.

| Organ involved | No.of cases | Percent |
|---|---|---|
| Vulva | 2 | 0.66 |
| Vagina | 2 | 0.66 |
| Cervix | 4 | 1.34 |
| Total | 8 | 2.66 |

The incidence of schistosomal lesions found among 300 women infected with urinary and/or intestinal schistosomiasis were 8 cases (2.66%). Both vulva and vagina were affected in (0.66% of the total cases), and the cervix was affected in 1.34% of all cases, the cervix was the commonest site involved.

Analysis of cases with schistosomal gynaecological lesions (8 women):

(a) Distribution:

Out of 300 women with schistosomiasis 8 cases revealed positive schistosomal lesions , by histopathology. All lesions were in the lower genital organs, i.e.vulva, vagina and cervix (2.66%). Ths distribution of the positive cases is presented in table 10.

Table 10. Distribution of schistosomal lesions in the lower genital tract (8 cases).

| Organ involved | No.of cases | Percent |
|---|---|---|
| Vulva | 2 | 25 |
| Vagina | 2 | 25 |
| Cervix | 4 | 50 |
| Total | 8 | 100 |

(b) Age distribution:

Table (11) shows the age distribution in the 8 cases with schistosomal gynaecological lesions.

Table 11. Age distribution (8 cases).

| Age (years) | No. of cases | | | |
|---|---|---|---|---|
| | Vulva | Vagina | Cervix | Total |
| Less than 15 | - | - | - | - |
| 15 - 20 | 1 | 1 | - | 2 |
| 21 - 25 | 1 | - | - | 1 |
| 26 - 30 | - | - | - | - |
| 31 - 35 | - | 1 | - | 1 |
| 35 + | - | - | 4 | 4 |
| Total | 2 | 2 | 4 | 8 |

Three cases were 30 years old or less (37.5%), while 5 cases (62.5%) were above the age of 30 years.

Parity: Table 12 shows parity of positive schistosomal cases.

Table 12. Parity of positive schistosomal cases.

| Parity | No. of cases | | | |
|---|---|---|---|---|
| | Vulva | Vagina | Cervix | Total |
| Nullipara | 1 | - | - | - |
| Para I | - | 1 | - | 1 |
| Para II | 1 | - | 1 | 2 |
| Para III | - | 1 | - | 1 |
| Para IV or more | - | - | 3 | 3 |
| Total | 2 | 2 | 4 | 8 |

From the above table , it was found that para IV or more represented by three cases (37.5%) and para II represented by two cases (25%) . Nullipara, para I and para III each represented by one case (12.5 %).

Table 13. Shows the pathological findings in the schistosomal gynaecological cases.

Table 13. Pathological findings in the schistosomal gynaecological cases.

| Pathological Finding | No. of cases | | | |
|---|---|---|---|---|
| | Vulva | Vagina | Cervix | Total |
| Mass : | 2 | 1 | 3 | 6 |
| Cauliflower | 1 | - | - | 1 |
| Polyp | 1 | 1 | 3 | 5 |
| Endocervical polyp | - | - | 1 | 1 |
| Total | 2 | 1 | 4 | 7 |

From the above table, it was found that the commonest bilharzial lesion was in the form of a polyps, which was found in 6 cases (75%). A cauliflower mass was seen in one case (12.5%), while in another case bilharziasis was detected in the vaginal smear .

Histopathologic study of positive bilharzial cases:

Eight out of 300 females, infested with urinary and/or intestinal bilharziasis were positive for lower genital tract bilharziasis. Four lesions were found in the cervix, out of which three cases were in the ecto-cervix and one was endocervical. Two lesions were detected in both the vagina and the vulva.

(a) Cervical cases:

Case I : (Figure 1):

Pathological examination of the specimen reveals bilharzia ova, both living and dead, in the connective tissue beneath the stratified squamous epithelium and among the cervical glands. The ova are diffusely surr-ounded with plasma cells, eosinophils, lymphocytes and histocytes. In certain places, the ova can be seen in the rete pegs. The covering squamous epithelium shows hyperplastic and mild atypical areas, but there is no malignancy.

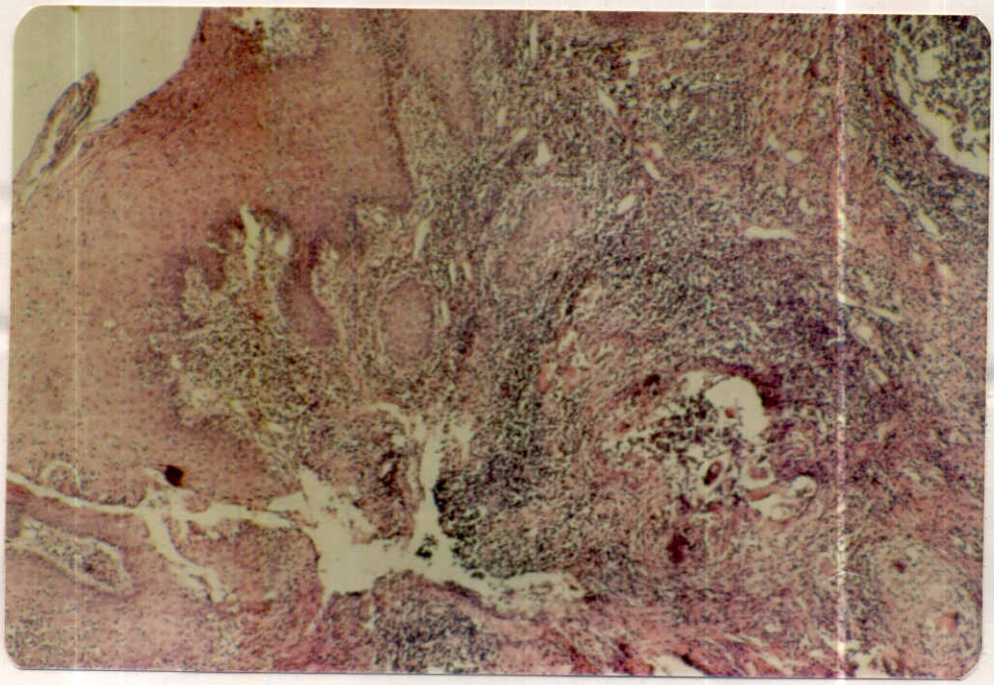

Fig.(1): Bilharzial ectocervicitis showing many bilharzia ova surrounded by specific granulation tissue.
(HX. & Eos. x 100).

Case 2 : (Figure 2):

The polyp is covered by squamous epithelium, showing marked keratinisation, acanthosis and parakeratosis. Underneath the epithelium, there are many schistosoma ova, some are dead and other are living or calcified. The ova are surrounded with eosinophils, lymphocytes, plasma cells and histocytes, with marked vascularity around them, there is no evidence of malignancy.

Case 3: (Figures 3 & 4):

Endocervical polyp covered by columnar epithelium, showing hyperplastic changes. Dead, living and calcified ova are found in the connective tissue layer beneath the columnar epithelium and among the cervical glands. The ova are surrounded by cellular reaction, i.e. plasma cells, lymphocytes, histocytes, eosinophils cells and giant cells. Mild atypical changes are detected in the covering columnar epithelium.

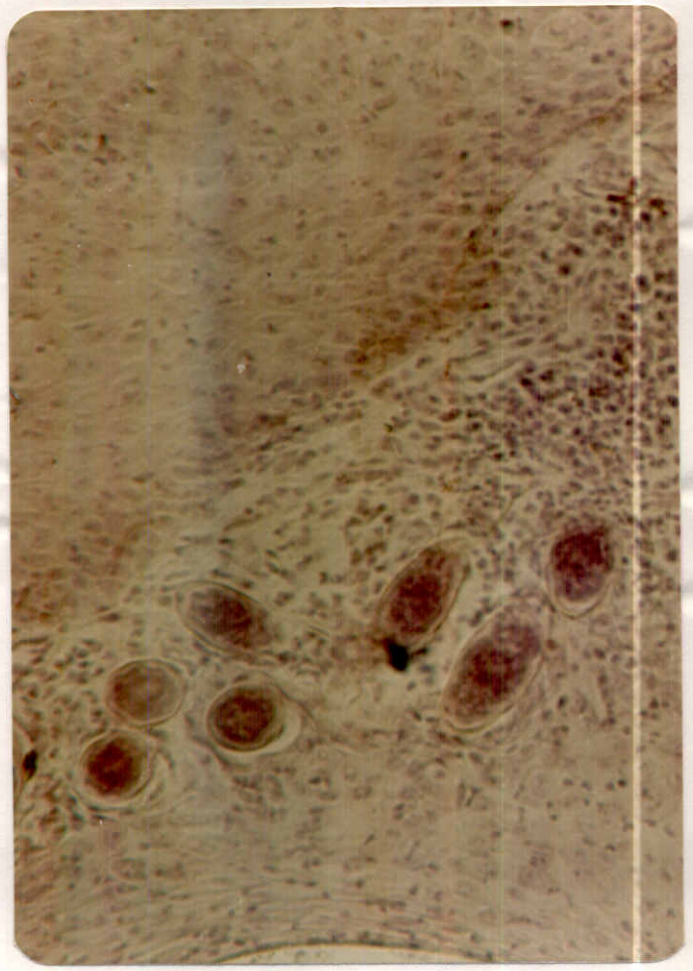

Figure (2): Bilharzial ectocervicitis illustrating many bilharzia ova in the stroma and acanthotic covering epithelium. (HX. & Eos.x120).

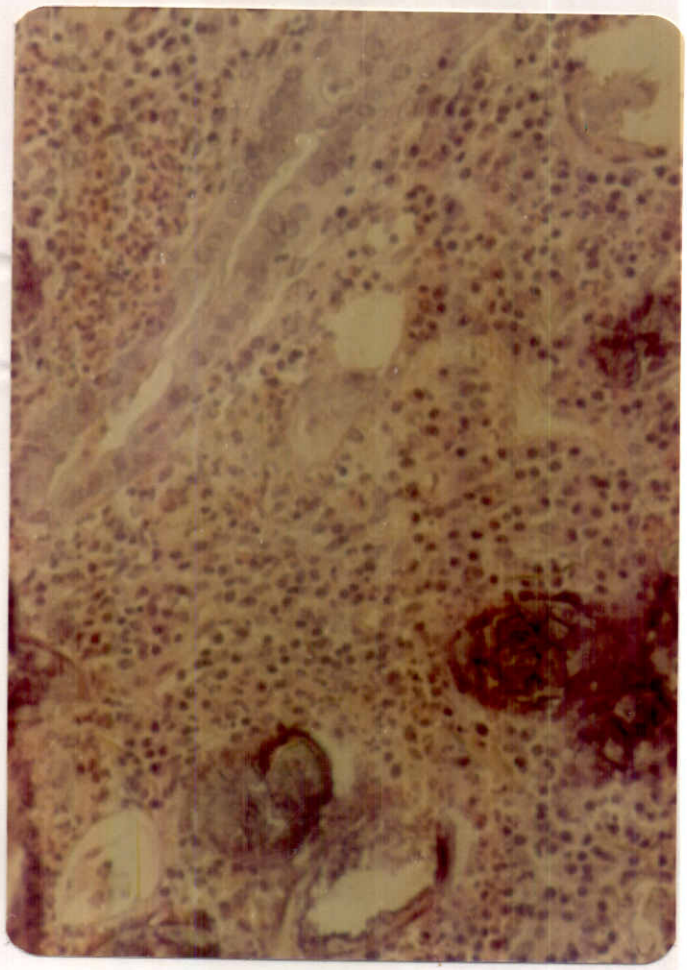

Figure (3): Bilharzial endocervicitis showing Bilharzial ova among the endocervical glands .
(HX. & Eos. X 120).

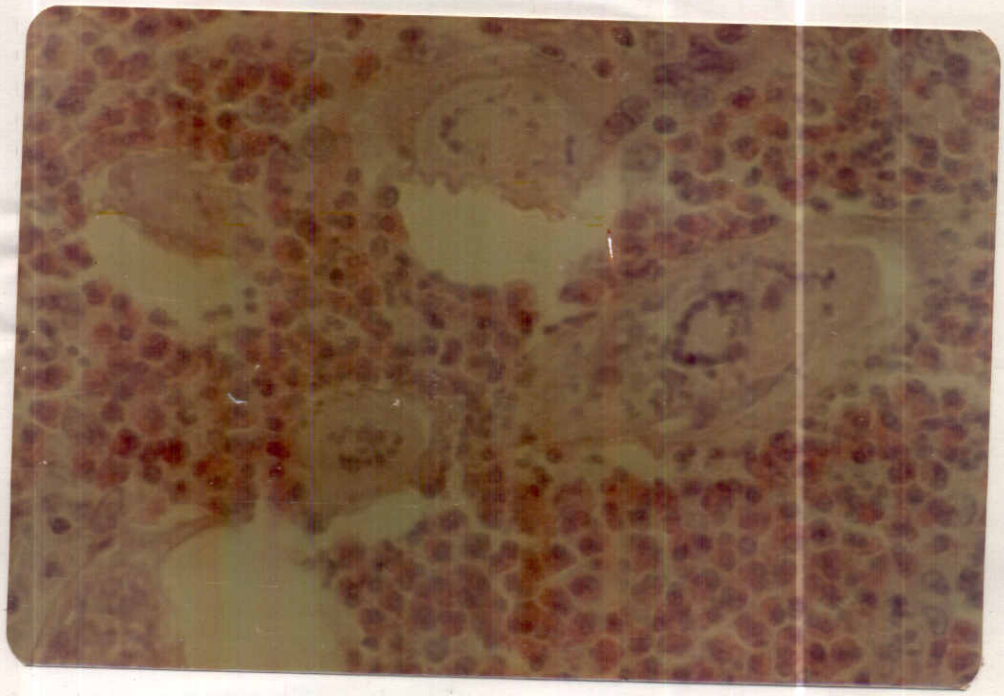

Figure (4): Specific bilharzial granulation tissue in the endocervical stroma composed of bilharzial ova surrounded by plasma cells, eosinophils, lymphocytes giant cells and histocytes .
(HX. & Eos. X 180).

Case 4: (Figure 5):

A section from a polypoid mass in the posterior aspect of the cervix stained by Haematoxylin and eosin. It shows a fibromyomatous lesion, composed of fusiform muscle cells with long rod shaped nuclei, alternating with fibroblasts. Bilharzia ova, dead or living, are seen in thesection. They are surrounded by cellular aggregation, i.e. histocytes, eosinophils, lymphocytes and plasma cells.

(B) Vaginal lesions:

Case 5 (Figure 6):

Section of the vaginal polyp shows many bilharzia ova, living dead or calcified, found in the subepithelial connective tissue and surrounded by specific bilharzial reaction, mostly in the form of lymphocytes, eosinophils and plasma cells. The cells are scattered in the section. The covering shows startified squamous epithelium with hyperkeratosis and no malignancy.

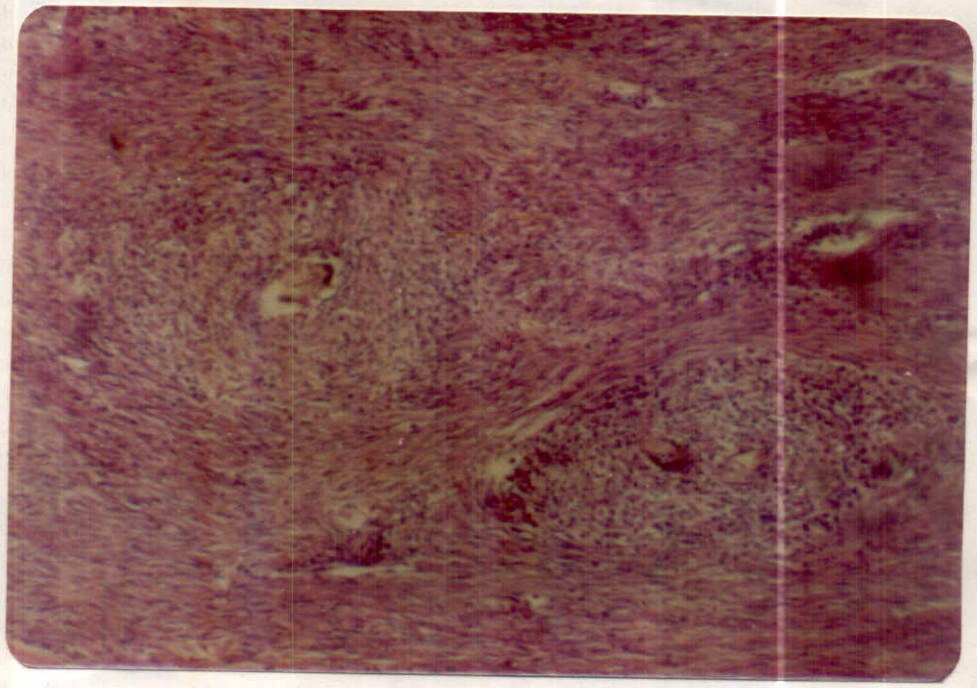

Figure (5): Fibromyomatous cervical polyp with bilharzial reaction among the tissue. (HX. & Eos. x 100).

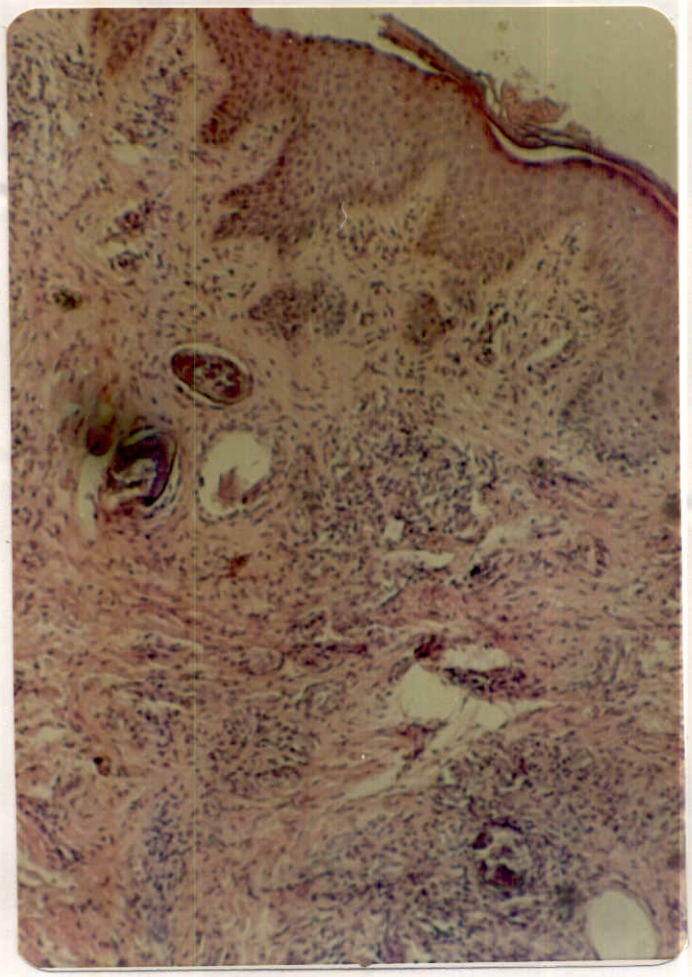

Figure (6): Bilharzial vaginitis composed of bilharzial ovum in the stroma, surrounded by specific granulation tissue .
(HX. & Eos. x 100).

(c) Vulval lesions:

Case 6: (Figure 7):

The specimen consists of a polypoid structure covered by stratified squamous epithelium, which is hyperplastic in some areas. The sweat and sebaceous glands can be seen. The connective tissue core is heavily infiltrated with bilharzia ova and surrounded with usual cellular reaction, in addition to foreign body giant cells. There is no malignancy.

Case 7 : (Figure 8):

Pathological examination of the specimen reveals numerous bilharzia ova, both living and dead , in the subepithelial connective tissue layer . They are surrounded by cellular aggregations in the form of plasma cells, eosinophils, histocytes and lymphocytes . The covering epithelial is transitional that shows no malignancy .

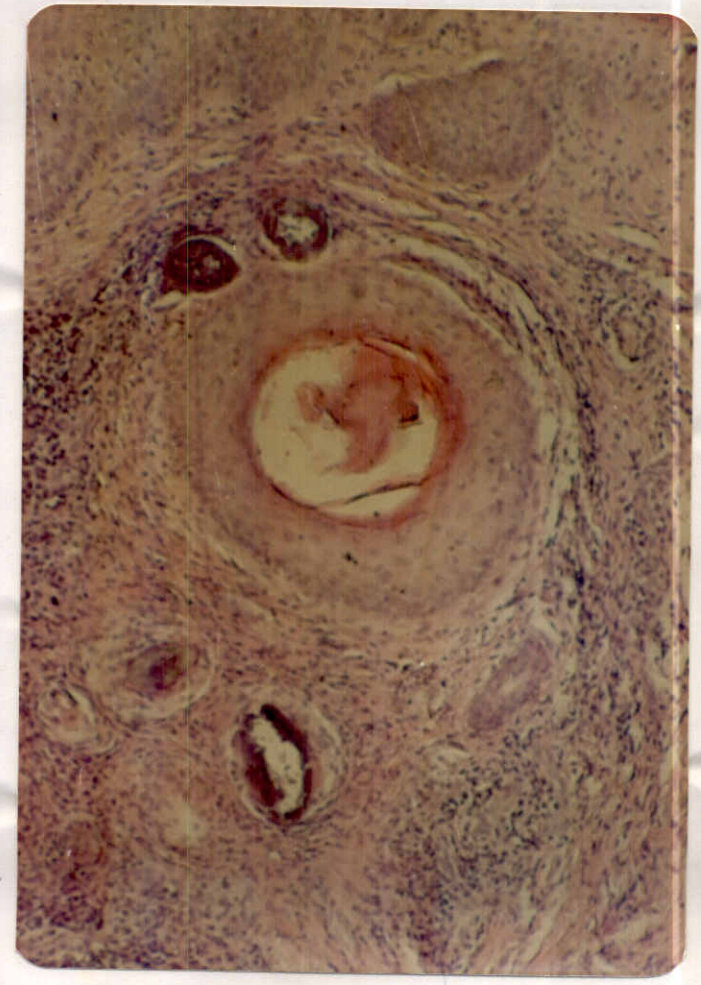

Figure (7): Vulval bilharzial lesion showing many bilharzial ova among the keratinized squamous epithelium.
(HX. & Eos. x 100).

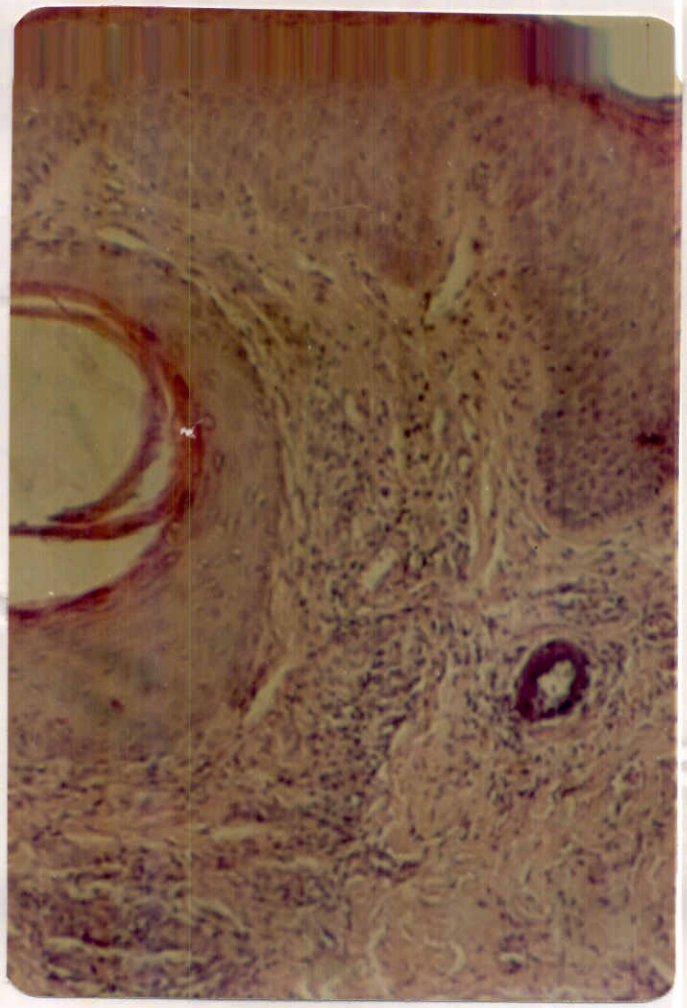

Figure (8): Bilharzial lesion in the vulval stroma surrounding the uretheral opening. (HX. & Eos. x 100).

Cytological examination:

Case 8 (Figure 9):

Cytological study of the examined smear in the 300 women examined were negative for bilharzial ova, except in one case where a smear was taken from the posterior vaginal fornix and the ectocervix . In this smear , one bilharzia ovum is seen, with a terminal spine and surrounded by chitinous shell. The back-ground is composed of many red blood cells, few eosinophils , lymphocytes and histocytes.

Case 3 (Figure 10):

In the smear taken from the endocervical polyp, sheats of endocervical cells, showing mild atypical changes was observed , surrounded by inflammatory reaction. No bilharzia ova could be detected in the smear of this case.

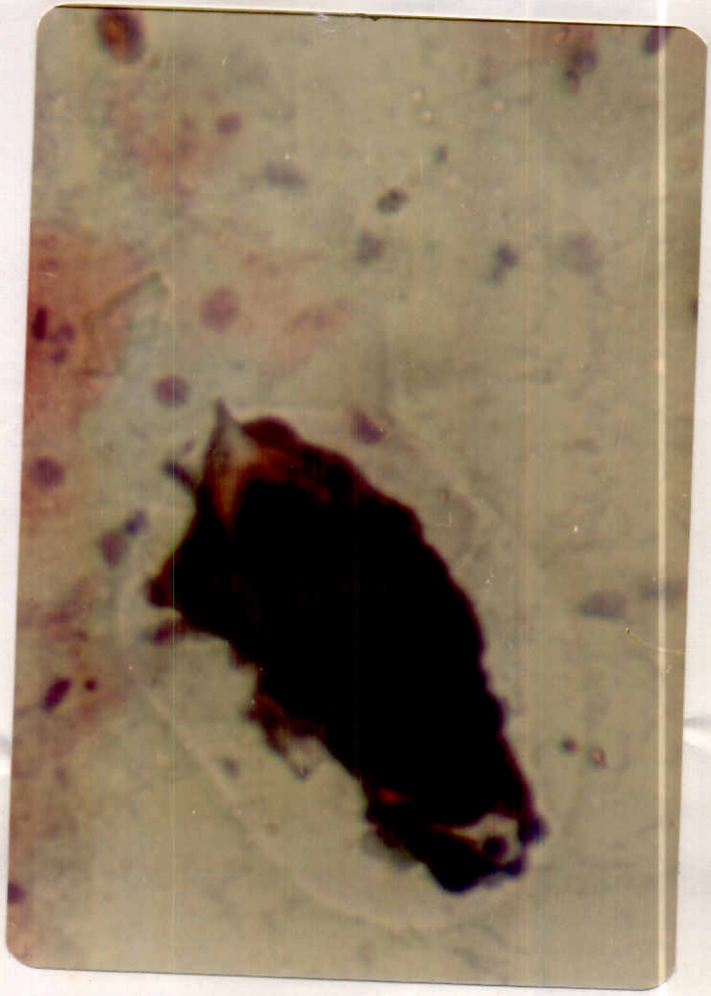

Figure (9): Smear from posterior vaginal fornix showing ovum of schistosoma haematobium among the superifical keratinised cells. (papanicoloau stain x 280).

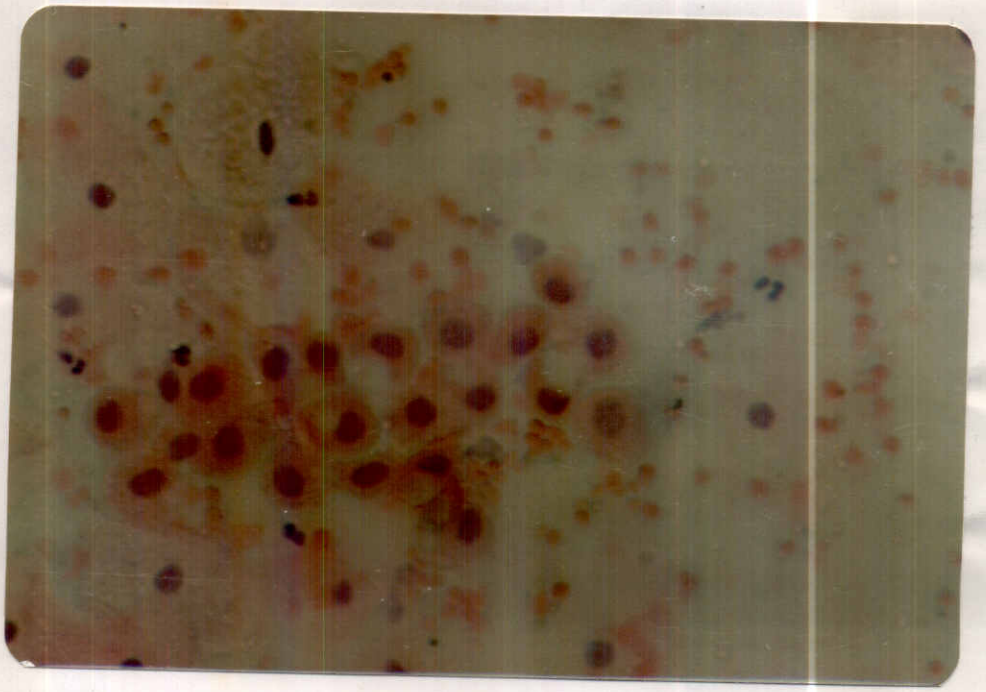

Figure (10): Mild atypical changes in the endocervical cells of smear taken from case No.3.
(papanicoloau stain x 280).