RESULTS

This work was carried out on 15 infertile males with lepromatous leprosy and another group of 10 fertile males with lepromatous leprosy had been taken as a control.

1) Clinical Findings :

The leprotic infertile group showed the following results, impaired testicular sensation in all patients (100%) with loss of this sensation in one patient 6.6% (the oldest). It was noticed that, there was decreased testicular sensation with increased duration of the disease. Two patients of the infertile group (13.3%) were suffering from impotence and they were the oldest patients. On the other hand, the testicular sensation was not impaired in the patients of leprotic fertile group.

2) Laboratory Findings :

While, seminal analysis of control group was normal and the count was ranged from 25 to 50 million sperms/ml., the seminal analysis of infertile group showed azoospermia.

Serum FSH levels in control group ranged from 5 to 17 mIu/ml. with mean value of (11.10 ± 4.48) while, LH levels ranged from 7 to 21 mIu/ml. with mean value of (13.10 ± 4.70) and T levels ranged from 6.3 to 12.5 ng/ml.

with mean value of (9.15 ± 2.68) (table 1 & illustration I). On the other hand, in the infertile group the serum FSH levels ranged from 10 to 71 mIu/ml with a mean value of (29.37 ± 20.50). While, serum LH levels ranged from 12.5 to 42 mIu/ml with a mean value of (26.03 ± 9.02) and T levels ranged from 4.9 to 11.8 ng/ml. with mean value of (8.08 ± 1.82) (table 2 & illustration II).

There was significant elevation of serum FSH levels (t value was 2.76) in the infertile leprotic patients compared to the control group. Also, serum LH levels were significantly elevated (t value was 4.15) in the leprotic infertile patients while, T levels were lowered in the infertile patients with insignificant differences in the fertile and infertile patients.

SERUM LEVELS OF FSH, LH AND T IN FERTILE GROUP WITH LEPROMATOUS LEPROSY. (Table 1)

Number	FSH (mIu/ml.) (N. 2 - 8)	LH (mIu/ml.) (N. 2 - 15)	T (ng/ml.) (N. 3 - 15)
Patient 1	6	9	6.8
Patient 2	8	7	7.8
Patient 3	5	13	10.0
Patient 4	17	10	7.1
Patient 5	8	17	10.5
Patient 6	15	21	10.0
Patient 7	12	11	14.0
Patient 8	14	20	6.3
Patient 9	17	12	12.5
Patient 10	9	11	6.5
$\bar{X}$ ± S.D.	11.10 4.48	13.10 4.70	9.15 2.68

SERUM LEVELS OF FSH, LH AND T

IN THE LEPROTIC INFERTILE GROUP (Table 2)

Number	FSH (mIu/ml.) (N. 2 - 8)	LH (mIu/ml.) (N. 2 - 15)	T (ng/ml.) (N. 3 - 15)
Patient 1	53	19	8.4
Patient 2	12	35	6.6
Patient 3	26	32	7.3
Patient 4	70	22	9.2
Patient 5	11.6	12.5	11.8
Patient 6	19	24	8.8
Patient 7	32	38	7.1
Patient 8	34	19	6.7
Patient 9	15	24	4.9
Patient 10	10	33	7.6
Patient 11	16	18	8.4
Patient 12	10	42	8.7
Patient 13	71	27	8.0
Patient 14	35	13	10.2
Patient 15	26	32	7.6
$\bar{X}$	29.37	26.03	8.08
± S.D.	20.50	9.02	1.62

3) Testicular Biopsy Findings :

Testicular biopsy was performed for 8 patients from the leprotic infertile group. The results of histopathological studies of the testicular biopsy were,

Case No. (1) :

Sections showed diffuse hyalinized tissue. Few (3-4) ghost tubules(totally hyalinised tubules) were seen with few interstitial inflammatory cells (Fig.).

Case No. (2) :

The diameter of the tubules was decreased. The germinal epithelium showed partial arrest at the levels of primary spermatocytes. The basement membrane and the peritubular tissue were thickened. The interstitial tissue showed normal Leydig cells and increased blood vessels. There was peritubular mild edema.

The mean score of Johnosen was 6.14.

Finally, the slide showed partial mixed arrest (Fig.).

Case No. (3) :

Sections showed tubular atresia and hyalinization.. There was diffuse interstitial fibrosis (Fig.).

Cases No. (4) :

The seminiferous tubules were completely atrophied and fibrosed with no evidence of spermatogenesis (Fig.).

Case No. (5) :

Sections showed patient tubules with slightly thickened basement membrane. The germinal epithelium showed arrest of the levels of spermatids and there was some hyalinization and the interstitium showed edema.

The mean score of Johnosen was 3.02 (Fig).

Case No. (6) :

The testicular tissue showed thickened basement membrane of the seminiferous tubules. The germinal epithelium showed partial arrest and there was interstitial cell (Leydig cell) hyperplasia. There was also a wide area of hyalinized material (Fig.).

Case No. (7) :

The biopsy specimen showed excess fibrous tissue with diffuse hyalinosis (Fig.).

Case No. (8) :

The specimen showed complete atrophy of the seminiferous tubules and the germinal epithelium was not shown (Fig.).

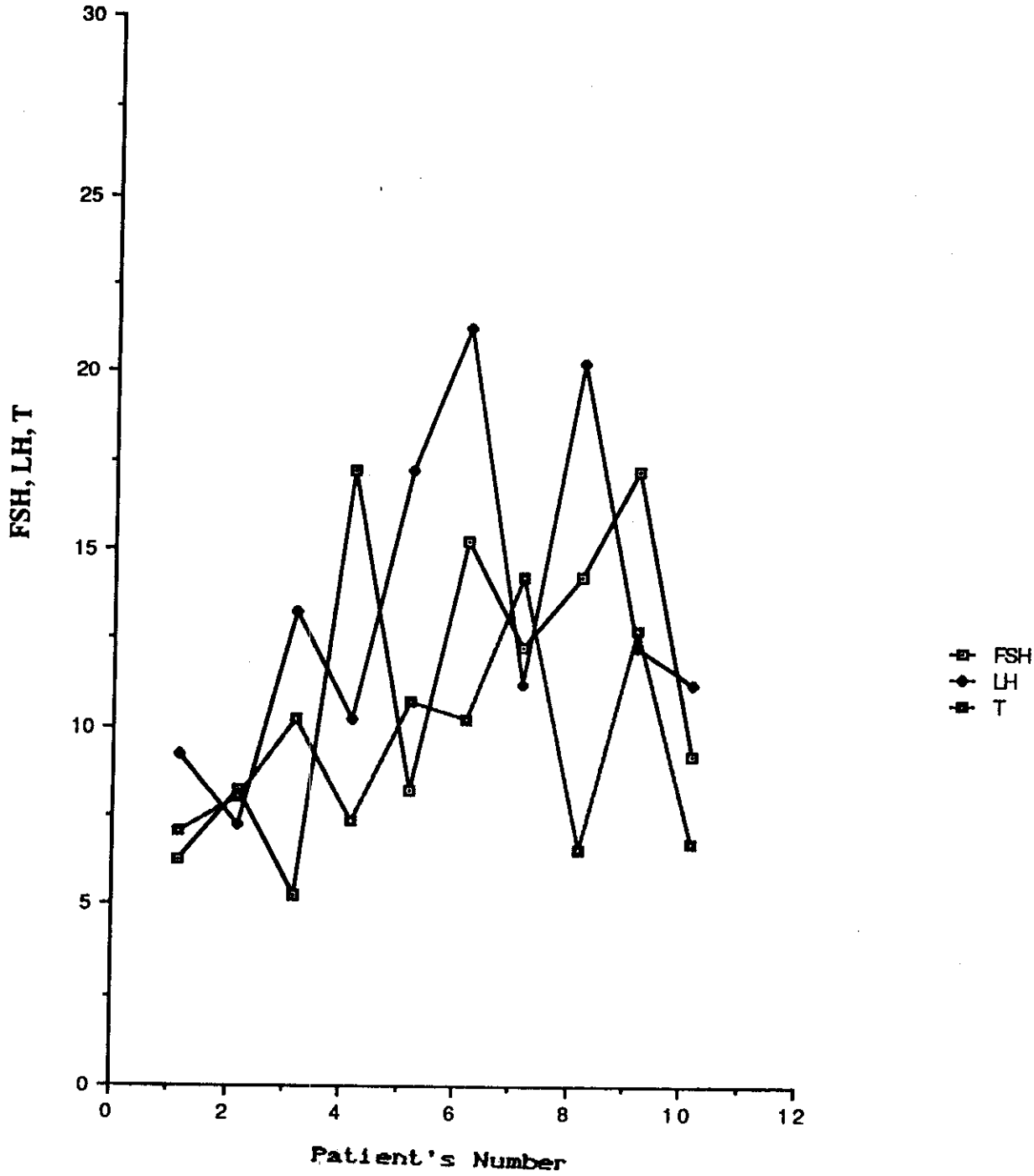

Illustration (I) shows serum FSH, LH and T leves in the leprotic fertile (control) group.

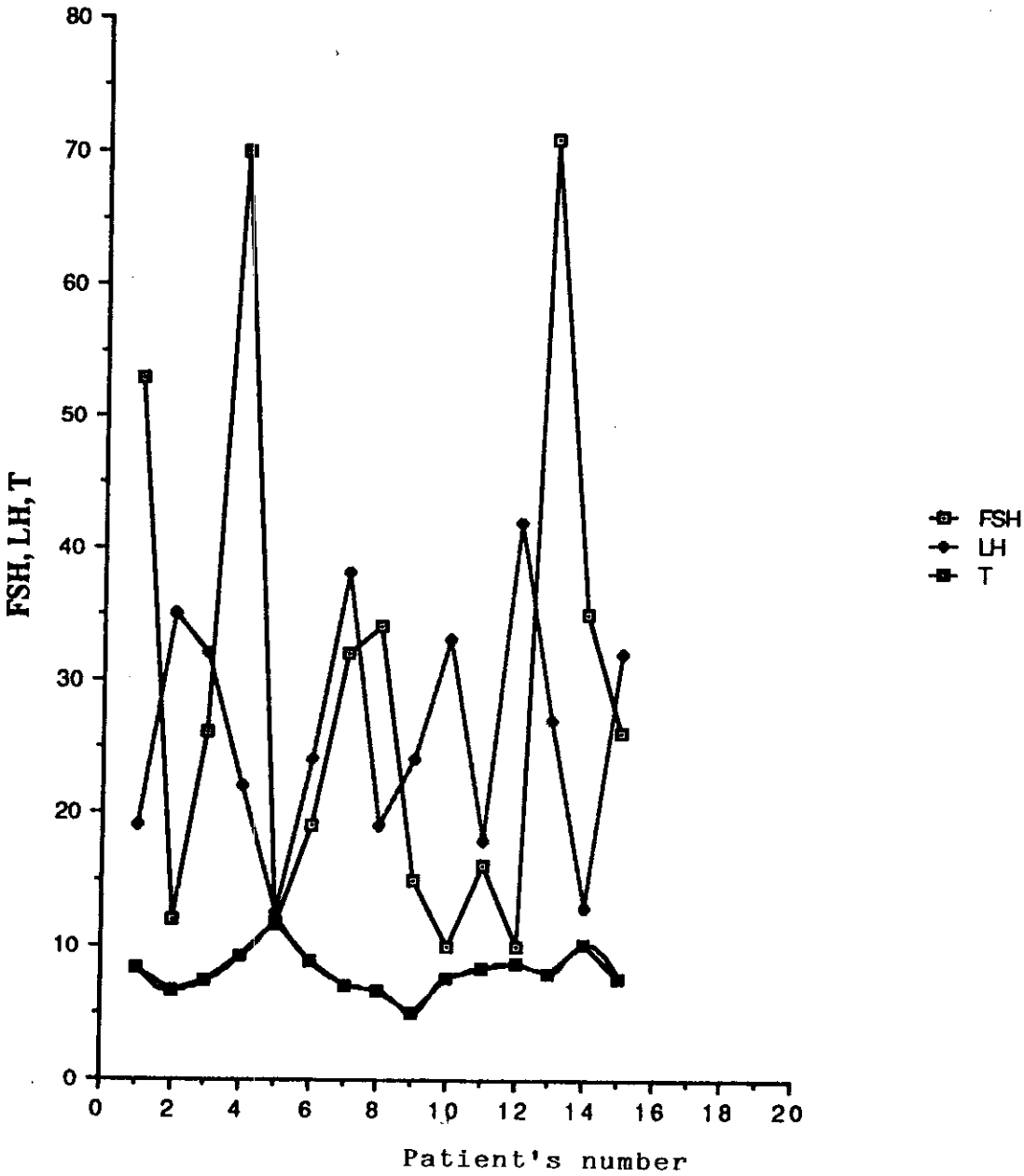

Illustration (II) shows serum FSH, LH and T levels in the leprotic infertile patients.

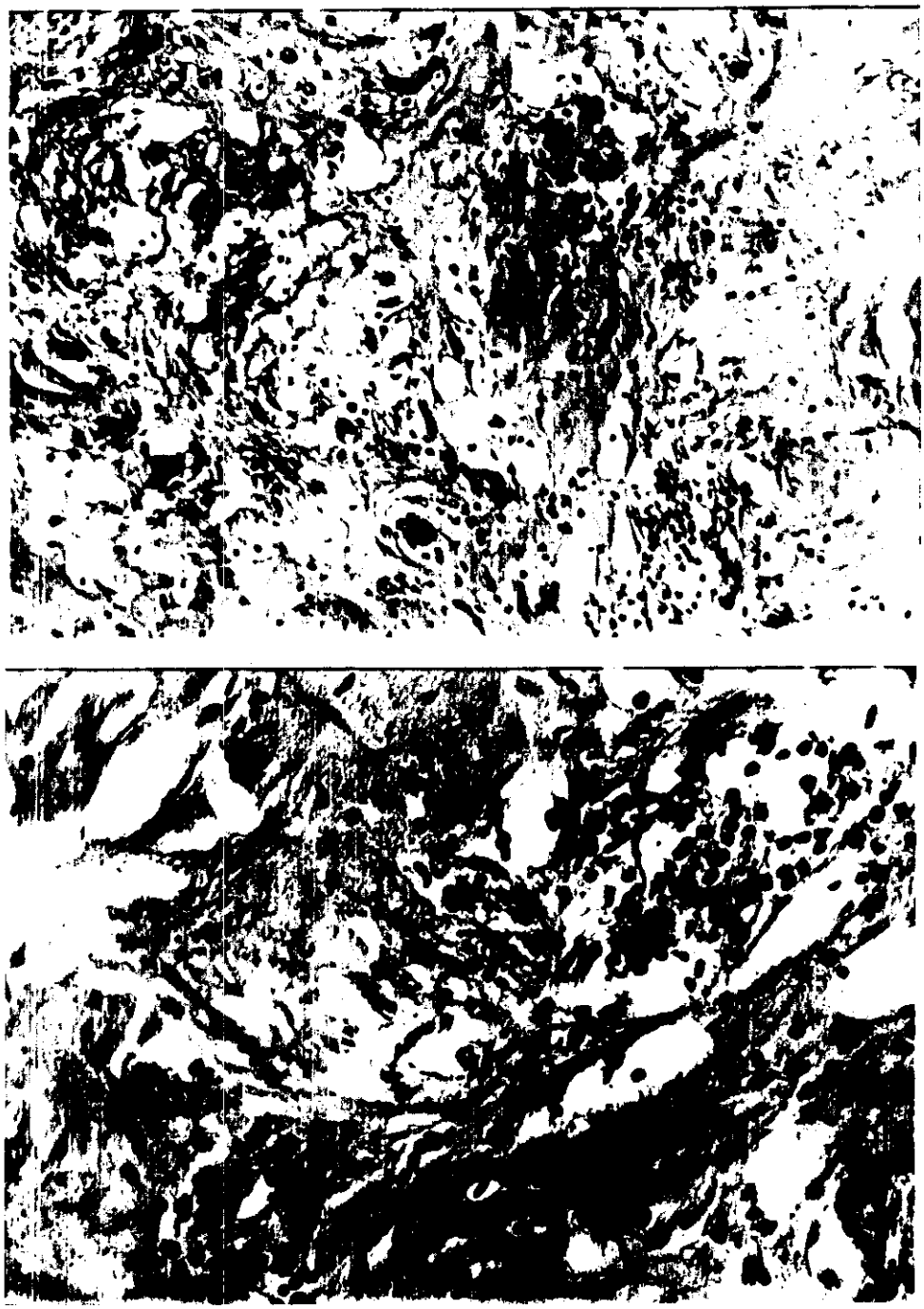

Fig. (1) : Sections showed diffuse hyalinized tissue. Few ghost tubules (totally hyalinised tubules) were seen with few interstitial inflammatory cells.

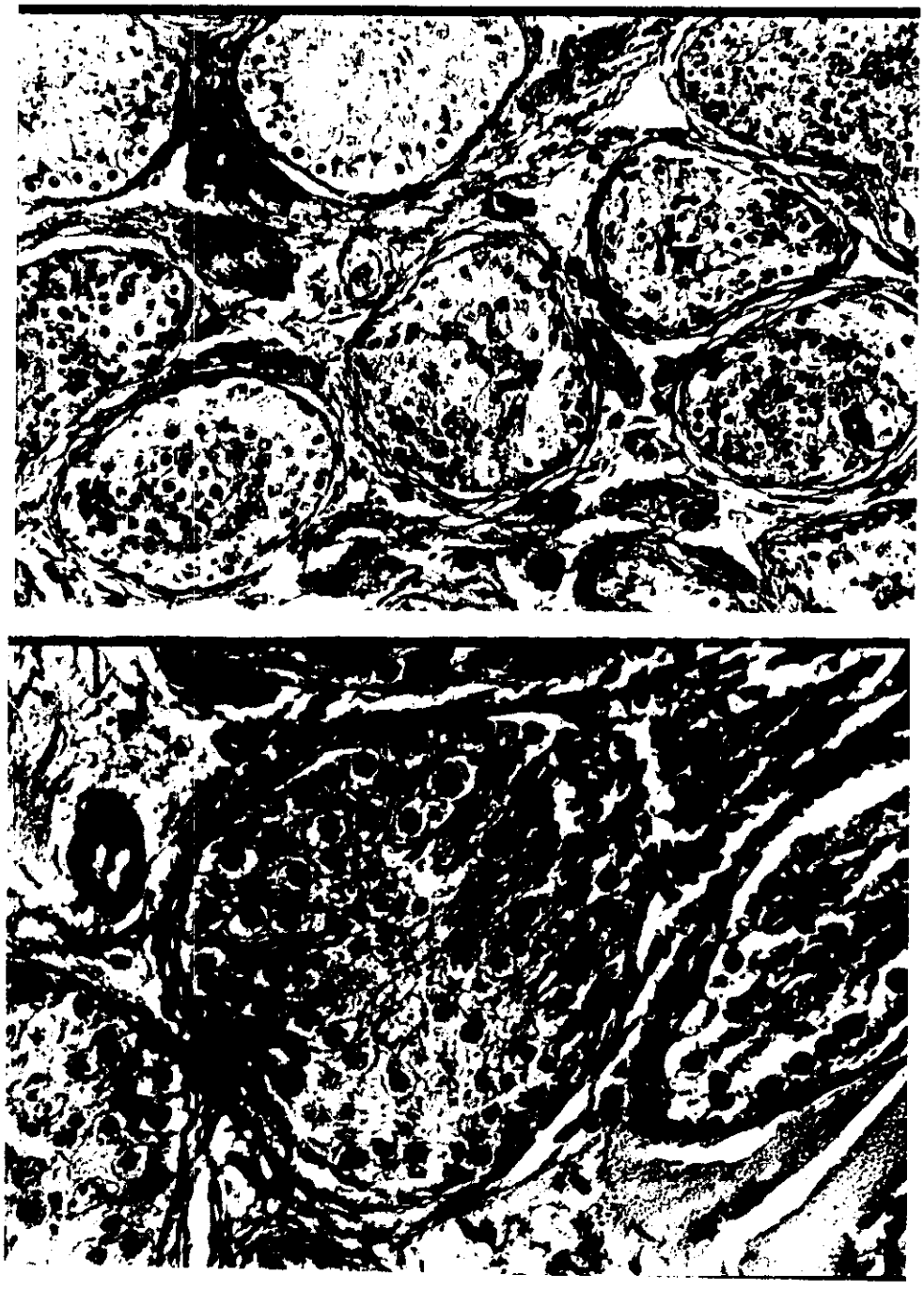

Fig. (2) : The diameter of the tubules was decreased. The germinal epithelium showed partial arrest at the levels of primary spermatocytes. The basement membrane and the peritubular tissue were thickened. The interstitial tissue showed normal Leydig cells and increased blood vessels. There was peritubular mild edema.

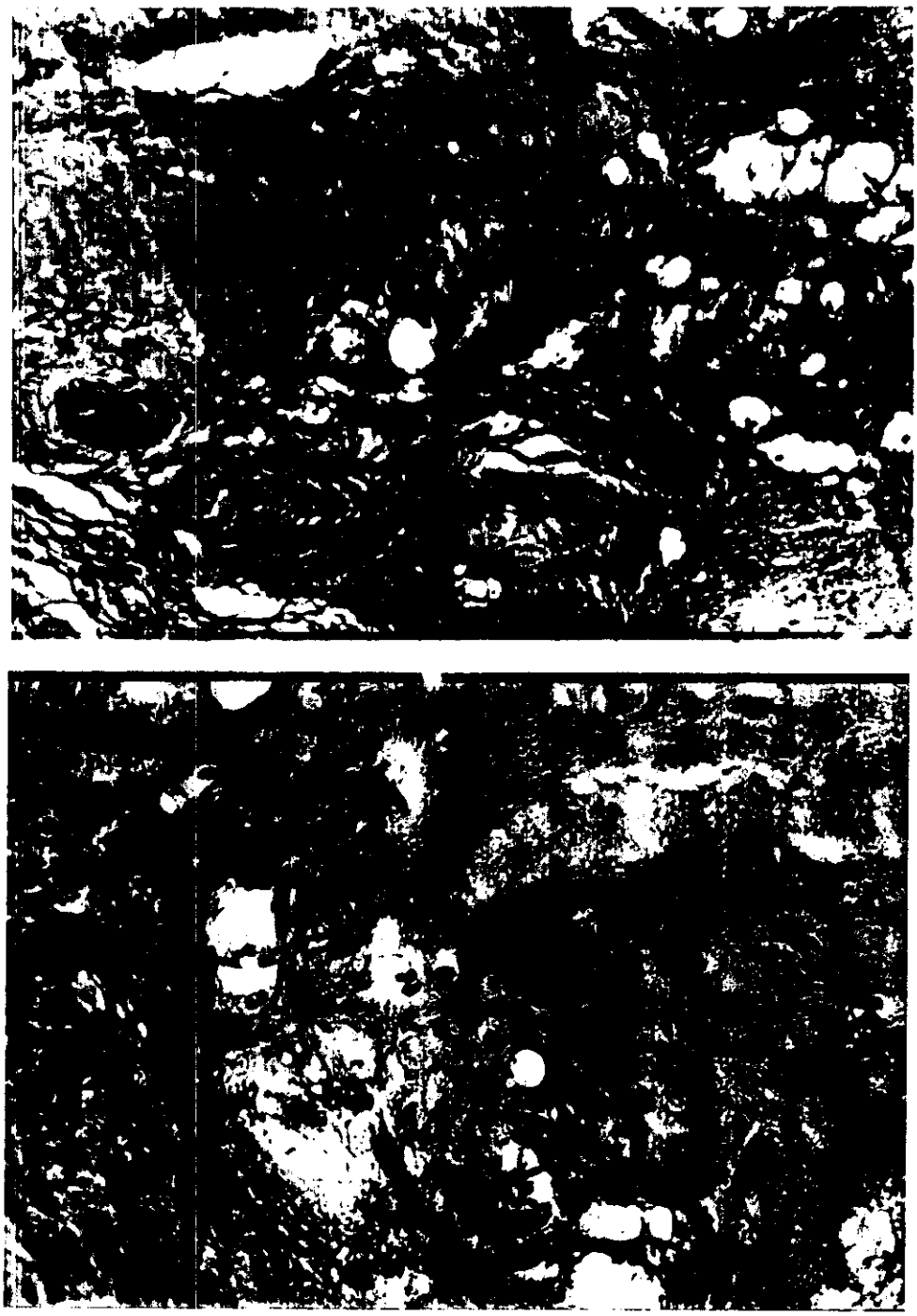

Fig. (3): Sections showed tubular atresia and hyalinization. There was diffuse interstitial fibrosis

Fig. (4) : The seminiferous tubules were completely atrophied and fibrosed with no evidence of spermatogenesis.

Fig. (5) : Sections showed patent tubules with slightly thickened basement membrane. The germinal epithelium showed arrest at the levels of spermatids and there was some hyalinization and the interstitium showed edema.

Fig. (6) : The testicular tissue showed thickened basement membrane of the seminiferous tubules. The germinal epithelium showed partial arrest and there was interstitial cell (Leydig cell) hyperplasia.

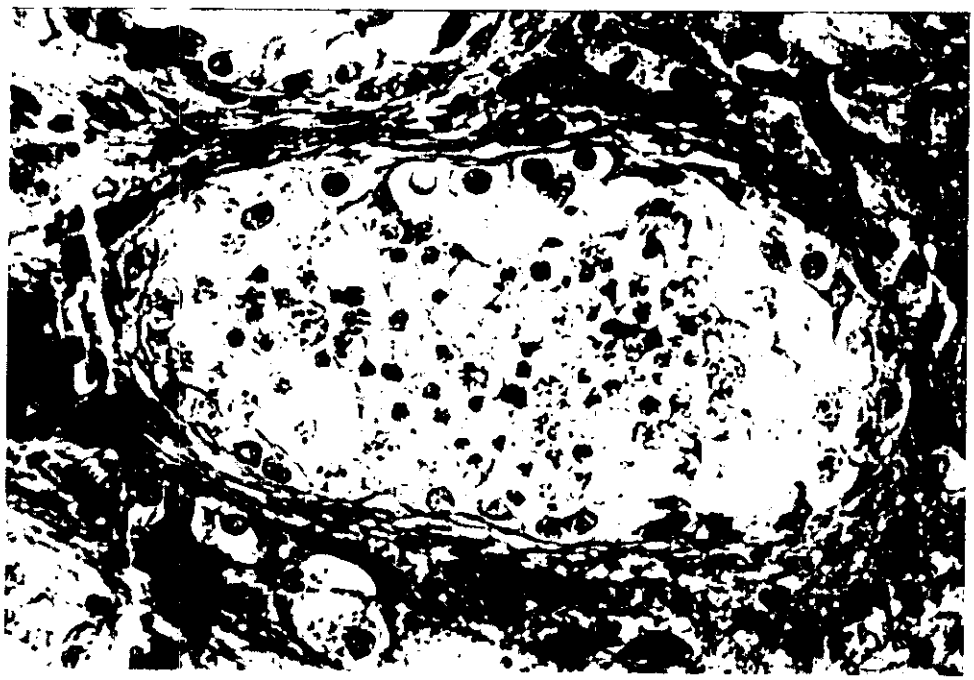

Fig. (7) : The biopsy specimen showed excess fibrous tissue with diffuse hyalinosis.

Fig. (8) : The specimen showed complete atrophy of the seminiferous tubules and the germinal epithelium was not showed.