RESULTS

Table (1) shows age and sex distribution of all patients included in this study. The age ranged from 15-55 years in males and females. The table shows that 38 (76%) patients were males and 12 (24%) patients were females. It was revealed that among 18 (36%) patients in the age group 15 -24 years, there were 15 (30%) males and 3 (6%) females. Among 15 (30%) patients in the age group 25-34 years, there were 11 (22%) males and 4 (8%) females. Among 10 (20%) patients in the age group 35-44 years, there were 6 (12%) males and 4 (8%) females. Among 7 (14%) patients in the age group 45-54, there were 6 (12%) males and one (2%) female.

Table (2) shows that 14 (28%) of patients had a history of contact to known tuberculous cases, 11 (22%) of them were males 3 (6%) of them were females. Among 36 (72%) of cases, there is no history of contact, 27 (54%) of them were males and 9(18%) were females.

Table (3) shows that, the positive primary cultures after 8 weeks incubation at 37°c were 48 (96%) strains and negative cultures were 2 (4%) strains.

Table (4) shows that the results of cultue and sensitivity test to the 4 drugs tested. It shows that 22 (45.83%) positive cultures were fully sensitive to the 4 drugs tested while 26 (54.17%) positive cultures were resistant to one or more drugs.

Table (5) shows that, 14 (29.17%) cases were resistant to streptomycin, 11 (22.92%) cases were resistant to isoniazid, 7 (14.58%) cases were resistant to ethambutol and only 3 (6.25%) cases were resistant to rifampicin.

Table (6) shows that 18 (37.5%) cases were resistant to one drug, 7 (14.58%) cases were resistant to two drugs, one (2.08%) case was resistant to three drugs and no cases resistant to four drugs.

Table (7) shows that, among 14 strains resistant to streptomycin, 9 (64.29%) strains were moderately sensitive, 3 (21.43%) strains were partially sensitive and 2 (14.28%) strains were completely resistant. Among 11 strains resistant to isoniazid, 7 (63.64%) strains were moderately sensitive, 3 (27.27%) strains were partially sensitive and one (9.09%) strain was completely resistant. Among 7 strains resistant to ethambutol, 5 (71.4%) strains were moderately sensitive, one (14.28%) strain was partially sensitive and

one (14.28%) strain was completely resistant. Among 3 strains resistant to rifampicin, 2 (66.67%) strains were partially sensitive and one (33.33%) strain was completely resistant.

Table (8) shows that 4 (8.33 %) positive cultures were resistant to streptomycin and isoniazid, one (2.08 %) positive culture was resistant to streptomycin and ethambutol, 2 (4.17 %) positive cultures were resistant to isoniazid and ethambutol and one (2.08 %) positive culture was resistant to streptomycin, isoniazid and ethambutol.

Table (9) shows that, among the age group (15-24) years, 13(27.09 %) cases were resistant to one or more drugs and 5 (10.41 %) cases were sensitive to 4 drugs tested. Among the age group (25-34) years, 9 (18.75 %) cases were resistant to one or more drugs and 6 (12.50 %) cases were sensitive to 4 drugs tested. Among the age group (35-44), 3 (6.25%) cases were resistant to one or more drugs and 7 (14.59 %) cases were sensitive to 4 drugs tested. Among the age group (45-54), one (2.08 %) case was resistant and 4 (8.33 %) cases were sensitive to 4 drugs tested.

Table (10) shows that, among 11 male patients with history of contact,to known tuberculous cases, 4 (36.36 %) cases were sensitive to one or more drugs and 7 (63.64 %)

cases were resistant. Among 3 female patients with history of contact, one (33.33 %) case was sensitive to one or more drugs and 2(66.67 %) cases were resistant. Statistical analysis showed no significant difference (chi square = 0.009).

Table (11) shows that, the radiological extent of the disease in relation to sensitvity test. among 11 cases with minimal lesion, 8 (72.73 %) of them were sensitive and 3 (27.27 %) cases were resistant. Among 18 cases with moderately advanced lesion, 8 (44.44 %) of them were sensitive and 10 (55.56 %) cases were resistant. Among 19 cases with far advanced lesion, 6 (31.58 %) of them were sensitive and 13 (68.42 %) were resistant. Statistical analysis showed a significant difference at $p > 0.05$ (Chi square = 4.79).

Table (12) shows that, among 11 cases with minimal lesions, 3 (27.27 %) of them were resistant to one drug and no cases resistant to 2 or more drugs. Among 18 cases with moderately advanced lesion, 8 (44.44 %) of them were resistant to one drug and 2 (11.11 %)were resistant to two or more drugs. Among 19 cases with far advanced lesion, 7 (36.84 %) of them were resistant to one drug and 6 (31.58 %) were resistant to two or more drugs. Statistical analysis

showed significant difference at $p > 0.05$ (Chi square = 7.10).

Table (13) showed that, radiological examination of 48 positive cases included in the study, 23 cases were non cavitary, out of them 12 (52.17 %) were sensitive and 11 (47.83 %) cases were resistant to one or more drugs, while 25 cases were cavitary, 10 (40 %) of them were sensitive and 15 (60 %) cases were resistant. Statistical analysis showed no significant difference (Chi square = 0.57).

Table (1) : Showing the age and sex distribution of the patients.

Age group	Male		Female		Total	
	no.	%	no.	%	no.	%
15-24	15	30	3	6	18	36
25-34	11	22	4	8	15	30
35-44	6	12	4	8	10	20
45-54	6	12	1	2	7	14
Total	38	76	12	24	50	100

Table (2) : Showing the distribution of cases according to history of contact or not to a known tuberculous patients.

Age group	Male		Female		Total	
	no.	%	no.	%	no.	%
Contact	11	22	3	6	14	28
Non contact	27	54	9	18	36	72

Table (3) : Showing the results of primary culture after 8 weeks of of incubation of the sputum postive cases for acid fast bacilli.

Culture	No.	%
Positive	48	96%
Negative	2	4%
Total	50	100%

Table (4) : Showing the results of sensitivity tests of positive Cultures.

Number of tested strains	Sensitive strains		Resistant strains to one or more drugs	
	no.	%	no.	%
48	22	45.83	26	45.17

Table (5) : Showing the incidence of primary resistance to each one of the 4 drugs tested.

Drugs	Resistant strains	
	No.	%
Streptomycin	14	29.17
Isoniazid	11	22.92
Ethambutol	7	14.58
Rifampicin	3	6.25

Table (6) : Showing the incidence of primary resistance to one or more drugs tested.

Number of drugs	Resistant strains	
	no.	%
One drug	18	37.5
Two drugs	7	14.58
Three drugs	1	2.08
Four drugs	0	------

Table (7) : Showing the analysis of the primary resistance to each one of the 4 tested drugs.

Drugs	Moderately sensitive		Partially sensitive		Completely resistant		Total	
	No.	%	No.	%	No.	%	No.	%
Streptomycin	9	64.29	3	21.43	2	14.28	14	100
Isoniazid	7	63.64	3	27.27	1	9.09	11	100
Ethambutol	5	71.4	1	14.28	1	14.28	7	100
Rifampicin	--	----	2	66.67	1	33.33	3	100

Table (8) : Showing the incidence of the primary resistance to different drug combinations among the 4 tested drugs.

Drug Combination	Resistant strains	
	no.	%
SM + INH	4	8.33
SM + EMB	1	2.08
SM + RMP	0	0.00
INH + EMB	2	4.17
INH + RMP	0	0.00
EMB + RMP	0	0.00
SM + EMB + INH	1	2.08
SM + EMB + RMP	0	0.00
SM + INH + RMP	0	0.00
RMP + EMB + INH	0	0.00
RMP + SM + INH + EMB	0	0.00

Table (9) : Showing the incidence of primary drug resistance in relation to age.

Age in year	Resistant strains		Sensitive stranins		Total	
	No.	%	No.	%	No.	%
15-24	13	27.09	5	10.41	18	37.50
25-34	9	18.75	6	12.50	15	31.25
35-44	3	6.25	7	14.59	10	20.84
45-54	1	2.08	4	8.33	5	10.41
Total	26	54.17	22	45.83	45	100

Total (10) : Showing the incidence of primary drug resistance in relation to history of contacts to known tuberculous patients.

	Total number of cases with history of contacts	Sensitive strains		Resistant strains	
		No.	%	No.	%
Male contacts	11	4	36.36	7	63.64
Female contacts	3	1	33.33	2	66.67
Total	14	5	53.71	9	64.29

X^2 (chi spure) = 0.009

Total (11) Showing the radiological extent of the disease in sensitive and resistant cases

Radiological extent	Group of study					
	Sensitive		resistant		total	
	no.	%	no.	%	no.	%
Minimal lesion	8	72.73	3	27.27	11	100
Moderately advanced lesion	8	44.44	10	55.56	18	100
Far advanced lesion	6	31.58	13	68.42	19	100

X^2 (chi squre) = 4.79

P > 0.05

Table (12) : Showing the relation between the extent of tuberculous lesion the incidence of primary drug resistance to one or more drugs.

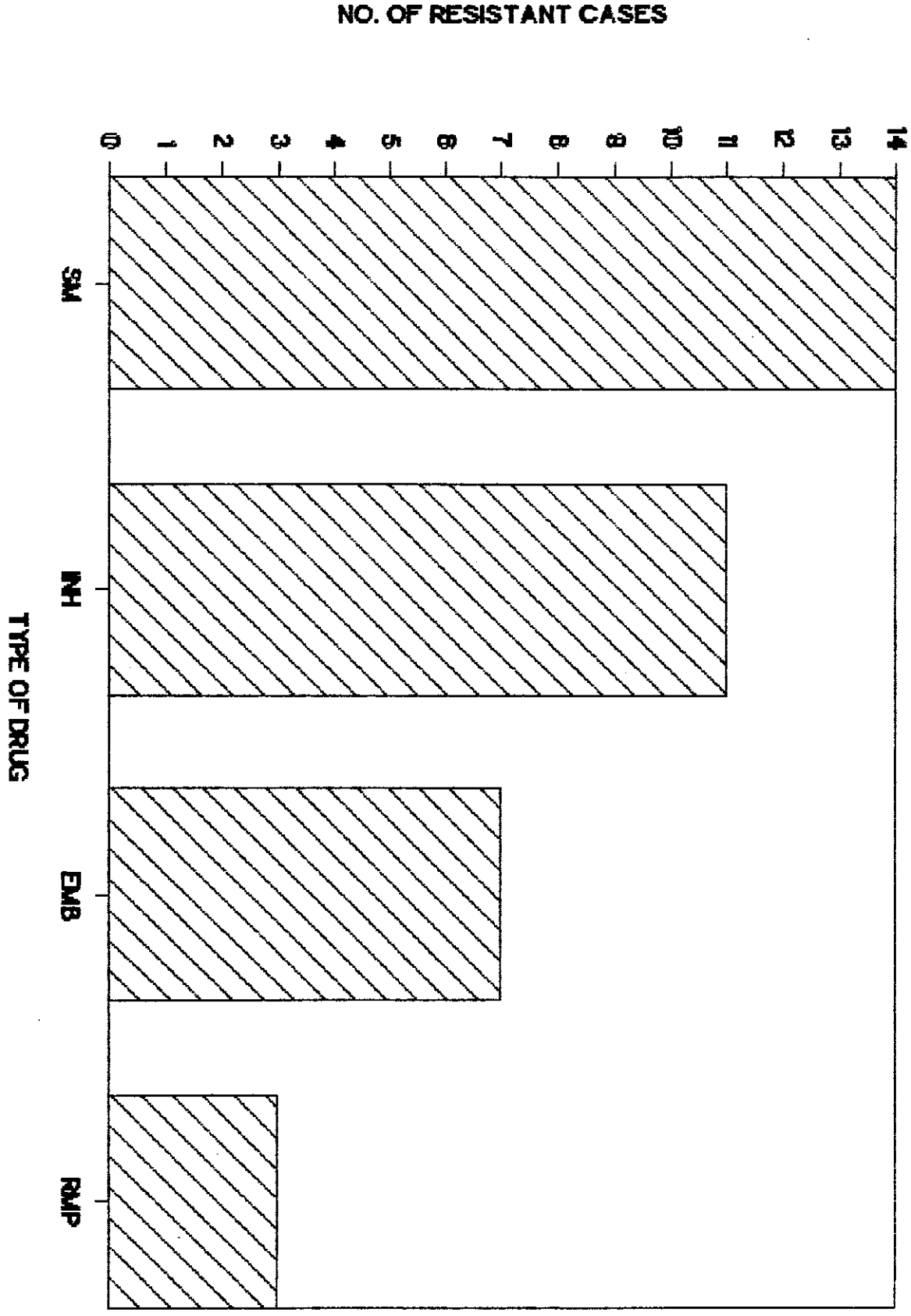
Extent of lesion	Sensitive strains		Resistant strains to one drug.		Resistant strains to two or more drugs		Total	
	no.	%	no.	%	no.	%	no.	%
Minimal lesion	8	72.73	3	27.27	0	---	11	100
Moderately advanced lesion	8	44.44	8	44.44	2	11.11	18	100
Far advanced lesion	6	31.58	7	36.84	6	31.58	19	100

X^2 (chi squre) = 7.10

Table (13): Showing the relation between cavitation and primary drug resistance.

Cavitation	Group of study					
	Sensitive strains		Resistant strains		Total	
	no.	%	no.	%	no.	%
Absent	12	52.17	11	47.83	23	100
Present	10	40	15	60	25	100

X^2 (chi squre) = 0.57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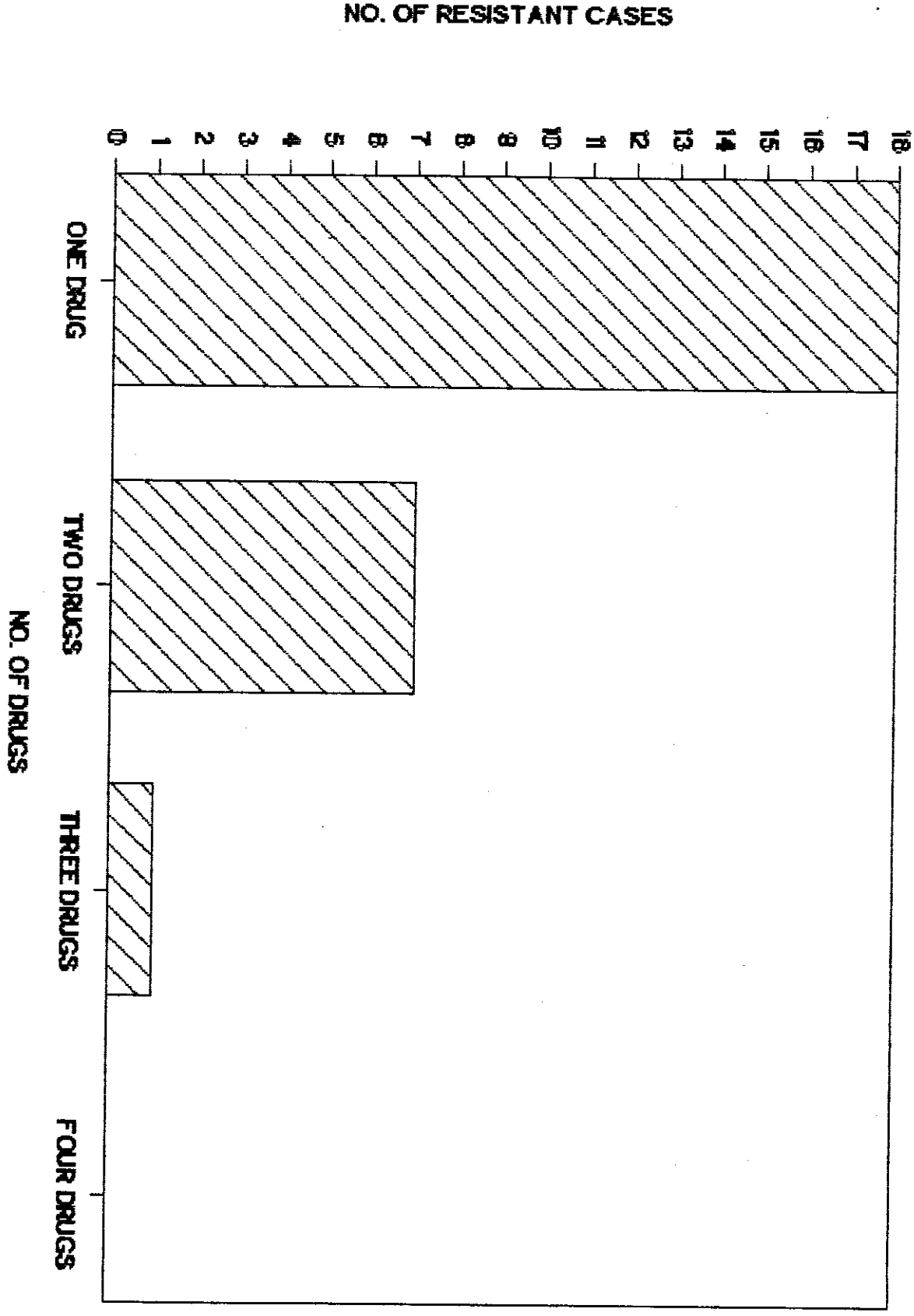
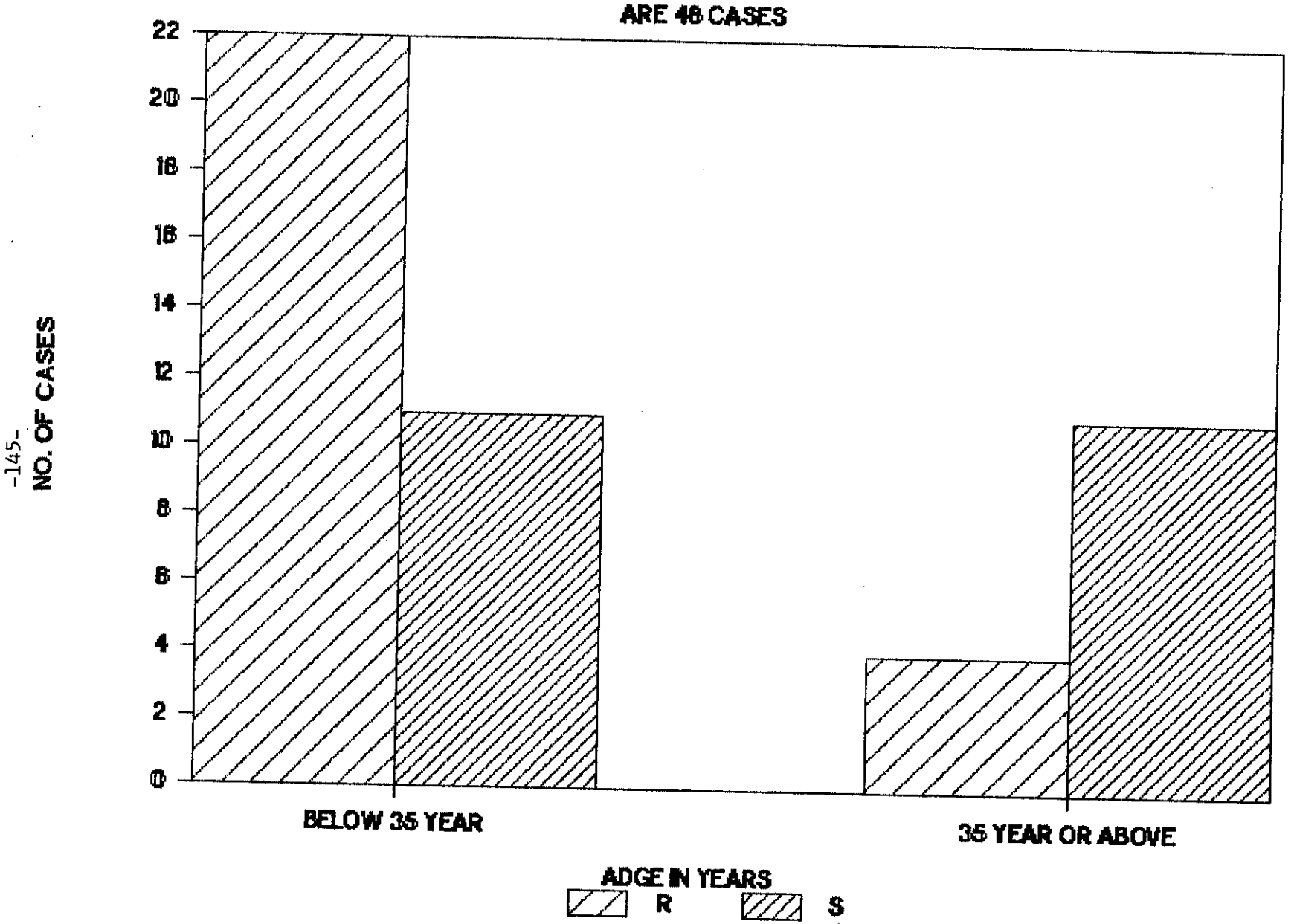
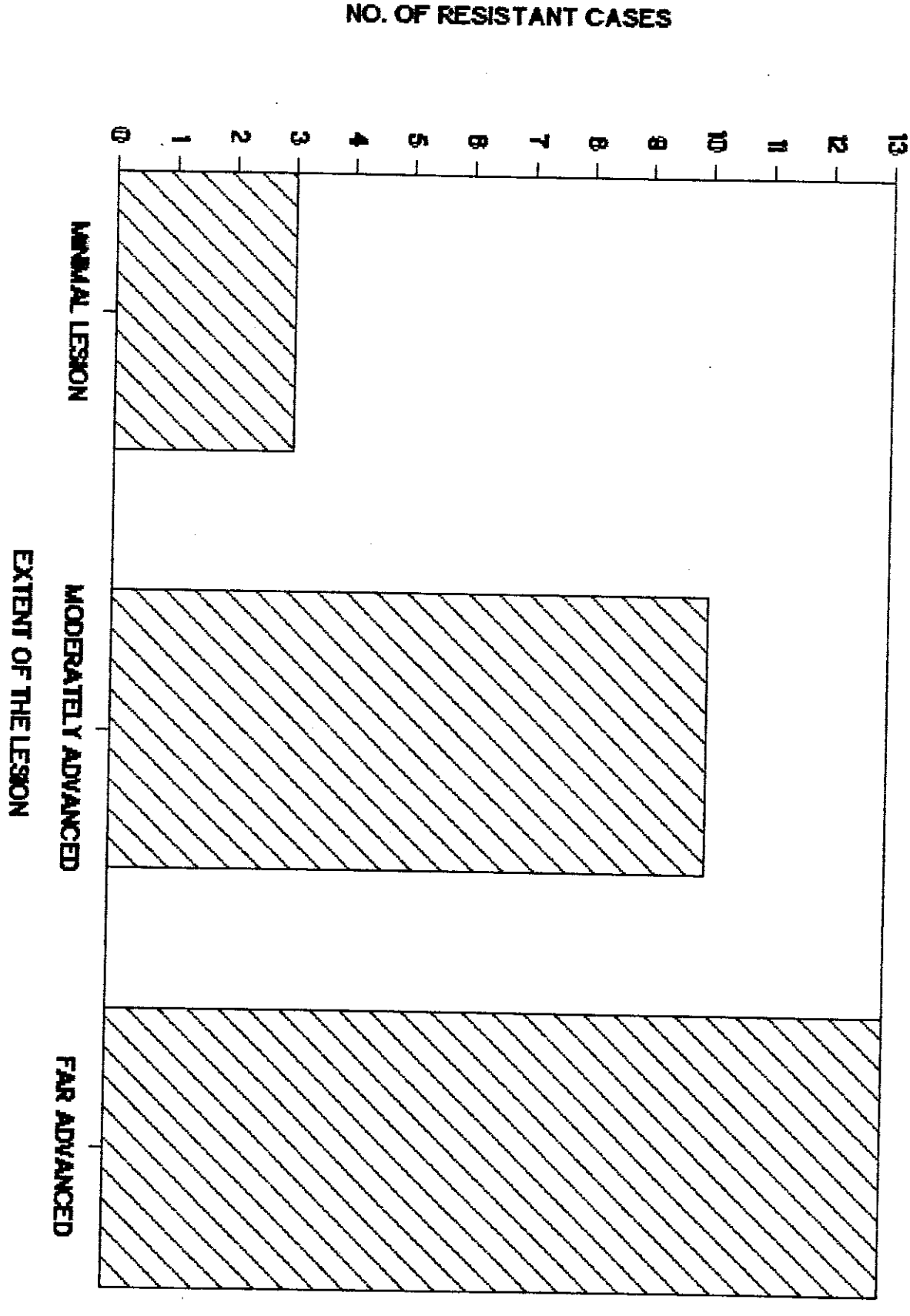
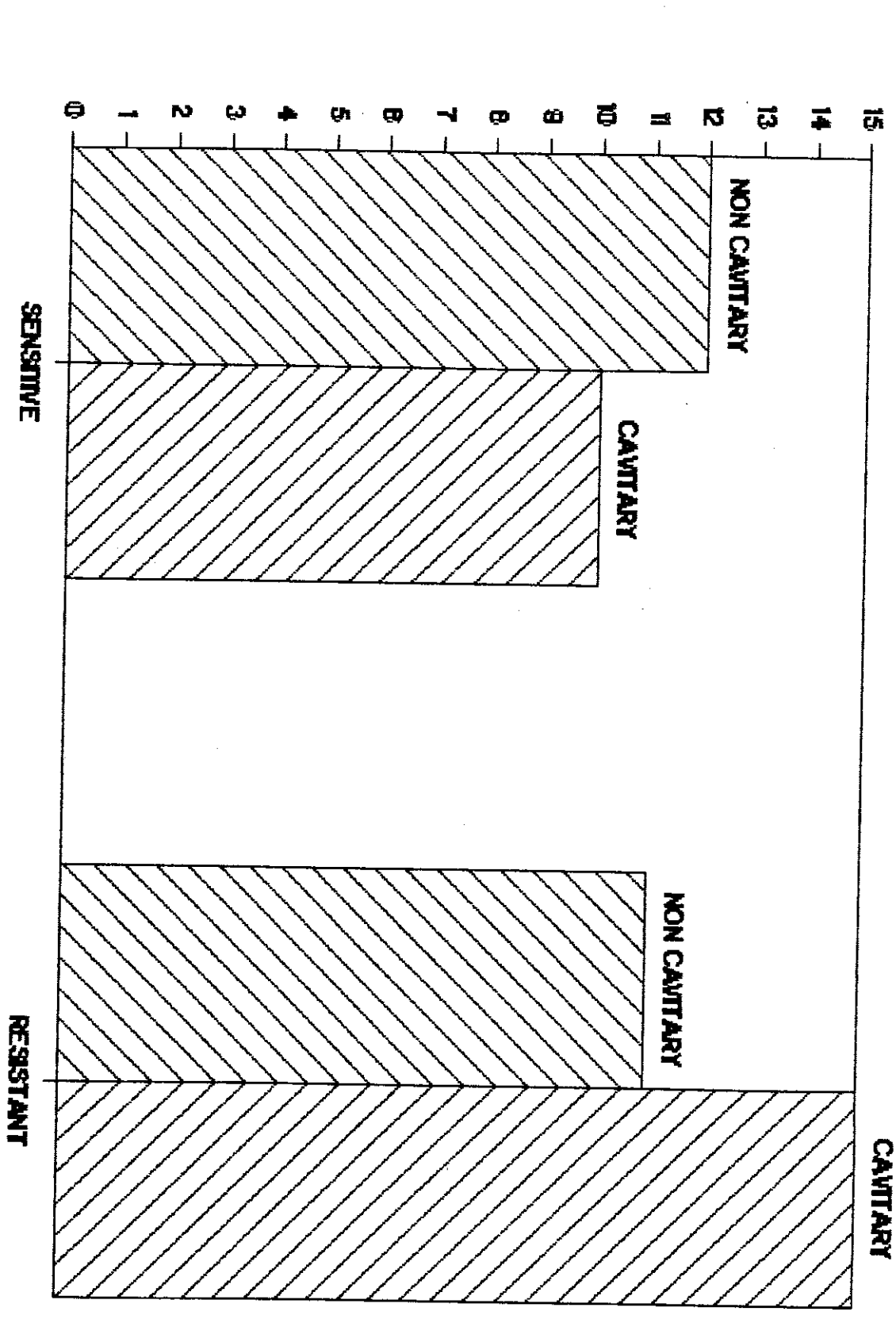
2
3
4
5
6
7
8
9
10
11
12
13
14
SM
INH
EMB
RMP
TYPE OF DRUG


NO. OF RESISTANT CASES
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
ONE DRUG
TWO DRUGS
THREE DRUGS
FOUR DRUGS
NO. OF DRUGS

TOTAL NO. OF POSITIVE CASES STUDIED




NO. OF RESISTANT CASES
0
1
2
3
4
5
6
7
8
9
10
11
12
13
MINIMAL LESION
MODERATELY ADVANCED
FAR ADVANCED
EXTENT OF THE LESION


NO. OF CASES
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1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
SENSITIVE
NON CAVITARY
CAVITARY
RESISTANT
NON CAVITARY
CAVITARY