SUMMARY

S U M M A R Y

With the aim of improvement of methods for early diagnosis of scleroma and standerdisation of treatment, 70 cases of scleroma of varying age groups and both sexes, 30 cases of atrophic rhinitis were also included since the clinical picture simulates the early stage of rhinoscleroma very closely, and a control group of 50 normal persons, all these 3 group were studied, the results could be summarized as following:

A) Statistical results

1- Scleroma is not uncomon in Egypt, the incidence of the disease is higher than what periviously reported .

2- The disease has been found to occur in particulary cleen and well to do patients, as poor hygienic habits.

3- The ages of the patients varied from 11 years old to 60 years old.

4- The highest incidence laying in the age between 21 to 30 years old 26 cases percentage 37 % , from 31 to 40 years old there were 18 cases percentage 25,7 % and from 11 to 20 years old there were 15 cases percentage 21,5 % , i.e the disease attacked the patients in their early life between the age of 11 to 40 years old.

5- A higher percentage of females were affected 60 % of cases (28 case) compared with 40 % males (28 case).

6- The highest incidence in both Sexes was at the age from 21 - 30 years old, 33 % of femals cases (14 cases) , 43 % of male cases (12 case) were affected in that age group.

7- Familial insiedance was observed in four cases (6 % of the
cases) reported from 2 families. A brother and sister and
mother and her daughters.

B) Clinical results

1- Differant stages of the disease were seen merging each other
and overlaped in the whole upper respiratory tract.

2- The nose was the mainly affected organ with scleroma as it
was affedted in 88,5 % of cases (62 cases),it was the only
affected site in 35 cases, i.e 51 % of total cases.

3- Larynx was affected in 38,5 % of cases (27 cases) it was
solely affected in 7 cases (10 % of all cases) .

4- Affection of pharynx was seen in 16 cases 23 % of cases.
In 10 cases of them 14 % of all cases all the pharynx was
affected. 6 cases (9 % of all cases) the lesion in the
pharynx was localised in the nasopharyngeal part, but almost
always with nasal lesion. Affection of the pharynx alone
were not observed neither nasopharyngeal part nor both aro.
hypopharyngeal parts of pharynx.

5- Anterior spread to the skin and upper lip were not observed
in the cases included in this work.

6- Nasolacrymal duct was invalned in one case of the series
(1,4%) other rare abnormal sites were not observed in
this study.

7- Treatment with chloramphenicol 250 mg Capsules 6 hourly
dose showed improvement after 6 - 9 weeks.

8- Treatment by Garamycine 40 mg Ampule one daily showed improvement in 2 - 4 weeks

9- Colomycine 80 mg vial when used in treatment showed improvement after 2 - 6 weeks.

10- Use of vibramycine 100 mg one Capsule daily cases improved within from 6 to 8 weeks.

11- Refadine when used in treatment of scleroma one Capsule daily of 300 mg showed the most rapid improvement within three weeks.

12- Radiation when tried as single line of treatment cases improved clinically after 3 weeks but complement fixation tests for the cases were still of high titres.

C) Pathological results

1- Pathological picture of scleroma was diagnostic Mikulicz cells, Russel bodies , were seen in sections . Klebsiella rhinoscleromatis could be seen in some cases in sections stained with Gram's stain, in some others we failed to identify the organisms. Mikulicz cells were predominent in sections prepared from the cases befor treatment.

2- Sections examined after treatment showed various degrees of change in pathalogical picture with treatment mainly this changes were diminusion of Mikulicz cell's number and extension of fibrosis. Cure was not achived pathologically even in cases which were completely healed clinically

D) Bacteriological results

<u>Results of cultivation</u>

1- Nasal swabbing was found to be very satisfactory for isolation
of the organism, 32 cases were positive the remaing case were
swabbed directly after teaking biopsy 10 cases of them were
positive, the cases which were still negative were tried by
cultivating the frigmented tissue biopcy from affected tissues
only 14 case were positive out from 28 cases.

2- Blood agar and chocolate agar media proved to be better media
for cultivation of Klebsiella rhinoscleromatis than MocConkeye's
agar. Out of 70 cases examinied bacteriologically, 56 cultures
of klebsiella rhinoscleromatis were isolated on either Blood
and chocolate agar whereas 10 cultures only were obtained on
MacConkey's agar.

3- The colonial morphology showed that klebsiella colonies were
greyish white in colour, about 8 mm in diameter. Hanging drop
preparations proved that the organism were non motil.

4- Films preposed from these suspicious colonies showed gram
negative short bacilli, with rounded ends, surrounded by a
capsule.

5- Biochemical identification of the isolates showed that they
were:

Lactose - ve , Glucose - ve, sucrose + v with acid only ,
mannite + ve, Inositol + ve with acid only, starch - ve,
sorbital + ve with acid only, adonitol + ve with acid only,
dulcitol - ve, glycerol - ve, Indole - ve, M.R. + ve an
V.P. - ve.

- Results of Antibiogram

6- In vitro antibiotic sensitivity tests for pure cultures of positive isolates were carried out on sensitivity test medium by disc method the results could be summerised as following:

A) Rifampicin by use of disc of 30 mcg gave zon of inhibtion varied from 12 to 18 mm in 45 cases i.e 90 % of cases examined, showed variable degrees of sensitivity mostly after 24 hours.

B) Gentamycin when tested the used discs were contaning 10 mcg showed zones of inhibation from 8 - 12 mm in 35 cases (70 % of examined cases) most of them during first 24 hours.

C) Colomycine discs were 10 mcg consantration gave 30 cases (60 %) positive for the drug and inhbation zones varied from 8 - 11 mm in first 24 hours.

D) Doxycycline (vibramycine) 40 % of cases were sensitive to this drug in variable degrees zones of inhibation around 30 mcg disc was varying from 5 to 8 mm in first 24 hours mainly .

E) Chloramphenicol was the drug which showed the least degree of affection on the organism 30 % only of tested cases showed zones of inhibation varied from 2 - 8 mm. around discs of 60mcg in the first 36 hours or more.

7- Results of skin test:

Intradermal skin test was not proved to be of value in the diagnosis of the disease by useing 2 types of antigens,

the whole killed organism or broth culture filtrate containing the soluble specific substance. The same reactions were seen in scleroma cases, atrophic rhinitis cases and even in control group.

- Results of seriological investigations:

To study the result of seriological investigations agglutination experiments both somatic and capsular and complement fixation tests were done, standerd strains of klebsiella rhinoscleromatis on B.G.L. agar, obtained from. Ain shams Univeristy department of Bacteriology, faculty of medicine, was used.

8- As regard agglutination experiments, It was not possible with avilable equepments to demonstrate the copsular antibodies by means of capsular agglutination, Somatic agglutination was carried out by useing two types of non capsulated variants, spontaneaus and induced, spontaneous variation by prolonged subcultures on agar was not successful, Variation was induced by growing the organisms on 1 : 800 phenol agar. Somatic agglutination experiments were positive in 98 %of cliaically diagnosed scleroma cases in a titre of 1280 - 5120 or higher. In the contral group the titres were lower ranging from 0 - 160. mostly between 10 and 40, atrophic rhinitis cases titres ranged between 160 - 320 and some cases reached the level of scleroma, biopsy and complement fixation proved this cases not to be scleroma.

9- The complement fixation test proved to be more specific.
It was positive in 98 % of cases to degree of 4 † in normal
cases (control group) and atrophic cases 4 + were not
obtained at all. The titres of sera varied between 40 and
320 mostly 160.

There was no relationship between antibody titres and stage
or duration of the disease or age of the patient.

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