STREPTOMYCIN IN THE TREATMENT OF TUBERCULOUS ULCERS OF THE CONJUNCTIVA

A Further Communication*

BY

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In a previous communication, Das Gupta and Usman (1949) described a case of bilateral symmetrical tuberculous ulcers of the bulbar conjunctivae, which responded very well to local parenteral streptomycin therapy. In that case no other tubercular focus could be detected. This article describes a case of tuberculous ulcers of the palpebral conjunctiva of one eye. The patient had other tubercular lesions elsewhere, which also responded well to streptomycin therapy.

Case Report

N. H., a male aged 19, Mohammedan student, resident of Ekbalpore (Bengal), was admitted to the Eye Infirmary, Medical College Hospital, Calcutta, on August 24, 1949, with ulcers in the upper and lower lids of the right eye.

History of Present Illness.—About two years ago the right eye showed an inflammation, more marked on the temporal than on the nasal side. After some days there was discharge from the right eye, and a few days later small ulcers were noticed on both lids, and these became gradually bigger. The left eye never gave any trouble.

History of Past Illness. About three years before his voice became hoarse. He attended the village dispensary and was given treatment but to no effect, and has now completely lost his voice. His appetite is poor and he has lost much weight.

Family History.—His parents are alive and quite healthy. He has five brothers and one sister, all healthy. He is unmarried and there is no history of contact with any tuberculous individual.

Diet.—He lives on an average Bengali diet of rice, wheat, vegetables, lentils, fish, meat, and milk.

Examination on Admission.—The patient was slightly built (weight $6\frac{1}{2}$ st.).

Right eye, lids swollen, with ulcers in both extending from the inter-marginal strip to the palpebral conjunctiva. In the upper lid the size of the ulcer was 13×5 mm., and in the lower 11×4 mm. The margins of the ulcers were clear cut, and there was a scanty whitish discharge over the surface. Cornea clear. No keratic precipitates. Pupil active to light. Tension normal. Vision 6/6. Fundus healthy.

Left eye, no abnormality detected. Vision 6/6. Fundus healthy.

The right pre-auricular and submental glands were enlarged. The temperature rose regularly towards evening, the maximum ranging from 100.6° to 101° F. Morning temperature was normal.

Investigations.—A scraping was taken from the floor of the ulcer on August 26,

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1949, and acid-fast bacilli were found. Discharge from the ulcer was sent for culture and was found to be sterile. Sputum was examined for acid-fast bacilli, with negative results. Sedimentation rate was estimated at 40 mm. per hour (Westergren). The blood was examined for total and differential count and the aldehyde and Chopra tests for kala-azar.

<i>Blood Picture.</i> —Total W.B.C.	9600 per c.mm.
Polymorphs	70 per cent.
Lymphocytes	26 per cent.
Large monocytes	2 per cent.
Eosinophils	2 per cent.
Malaria parasites	nil
Aldehyde and Chopra tests	negative

On September 7, 1949, the patient was sent to the Chest Department for a Mantoux test and skiagram of the chest. The latter showed nodular infiltration involving left apical and subapical regions. The Mantoux test was as follows:

- (1) 0.1 ml. 1/1,000,000 dilution (O.T.); induration 8 × 8 mm.; reaction doubtful.
- (2) 0.1 ml. 1/100,000 dilution (O.T.); induration 14 × 17 mm.; reaction + +.

On September 15, 1949, the patient was sent to the Ear, Nose and Throat Department, and extensive ulcerated areas involving pharynx, epiglottis, soft palate and base of tongue were reported.

On September 25, 1949, a section from the edge of the ulcer revealed tubercular granulation tissue, consisting of masses of epithelioid cells with areas of degeneration, lymphocytic and fibroblastic reaction.

FIG. 6.—Photomicrograph of section taken from edge of conjunctival ulcer (low magnification).

FIG. 7.—Photomicrograph of section taken from edge of conjunctival ulcer (high magnification) showing tubercular granulation tissue, consisting of masses of epithelioid cells with areas of degeneration, lymphocytic and fibroblastic reaction.

Treatment.—From September 2, streptomycin was given both parenterally and locally. 0.5 g. was injected intramuscularly twice daily. For local use 1 g. streptomycin was dissolved in 2 ml. distilled water and the drops given hourly from 8 a.m. to 8 p.m. After five days, the temperature came down and remained at normal. Altogether 40 g. streptomycin were given parenterally and 10 g. were used as drops.

FIG. 1.—Before treatment,
August 26, 1949.

FIG. 2.—After treatment,
September 12, 1949.

FIG. 3.—September 21, 1949.

FIG. 4.—October 18, 1949.

FIG. 5.—November 1, 1949.

Between September 9 and November 30, the weight rose from $6\frac{1}{2}$ to nearly $7\frac{1}{4}$ stone. Between August 26 and October 24, the sedimentation rate fell from 40 to 6 mm. per hour. The vocal hoarseness almost disappeared and the general health improved greatly. On September 3 a scraping for acid-fast bacilli was taken again, with negative results. Figs 1-5 show how the ulcers improved during the course of treatment. Microphotographs of the section taken from the edge of the ulcer appear in Figs 6 and 7.

Summary

(1) A case of tuberculous conjunctival ulcer with other tubercular lesions elsewhere is described.

(2) This case responded very well to streptomycin therapy, given both parenterally and locally.

(3) Temperature came down to normal level within five days of beginning streptomycin treatment.

(4) Sedimentation rate dropped from 40 to 6 mm. per hour.

(5) The vocal hoarseness almost completely disappeared.

(6) The patient gained almost 1 stone in weight.

(7) No untoward symptom was observed during the whole course of treatment.

(8) For reasons beyond the author's control, culture for tubercle bacilli or guinea-pig inoculation could not be done.

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REFERENCE

- DAS GUPTA, B. K., and USMAN, M. (1949) *British Journal of Ophthalmology*, **33**, 50.