ULTRA-VIOLET RAY TREATMENT OF
TRACHOMA

BY

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OF the making of treatments for trachoma there is no end. Most of them are a weariness of the flesh and many of them are positively brutal.

Trachoma is a disease which already causes much suffering and discomfort to the patient. It may be asked why add to the patient's suffering? Is there a treatment which is pleasant, rapid in its effects, and definitely curative? There is.

In July, 1928, I published a note in the *China Medical Journal* giving in detail a technique for the treatment of trachoma by the open tungsten arc-lamp. (Here let me emphasize that treatment to be effective must be by the tungsten arc-lamp, *not* by the mercury vapour lamp, which is of much less value for the purpose and liable to vary in its output of ultra-violet rays while emitting an excessive amount of the far ultra-violet rays when active; so that one cannot use such a lamp close up without undesirable results. Neither is the carbon arc-lamp of use, for it only emits 5 per cent. of ultra-violet rays.)

The patient is seated opposite the lamp at a distance of three feet and told to close the eyelids gently as if asleep. One drop of a 1 per cent. solution of adrenaline is instilled into each conjunctival sac in order to denude the parts of blood as much as possible, and so remove all impediment to the passage of the rays. Each eye is irradiated for a period of two to three minutes according to the severity of the case.

Ultra-violet rays are said by the physicists not to penetrate beyond the stratum corneum. This is *in fact* quite untrue, as any one can prove by their potency for sterilizing the conjunctival sac.

In cases of trachoma accompanied by super-added pneumococcal, streptococcal, staphylococcal, Koch-Weeks and Morax-Axenfeld infections one can observe with extreme satisfaction the rapidity with which these infections clear up under ultra-violet ray treatment, as also does any chronic blepharitis or other suppurative condition of the lids. I use a 6-10 ampère lamp and treatment is given at 3-day intervals.

In Hong-Kong I found that patients were so gratified by the pleasant results of the treatment that they frequently anticipated their subsequent treatment and begged to be treated more frequently, which is of course an unwise procedure. It is highly improbable,

one may add, that patients would express such gratification if the rays did not penetrate further than the stratum corneum. As a matter of fact the rays do penetrate to the conjunctival sac, as any ophthalmologist can prove to his own satisfaction if he cares to make use of the tungsten arc-lamp for sterilization of the conjunctival sac before operation.

It is the long wave lengths that are the most effective for this purpose and it is likewise these long wave lengths that are more penetrative, and these are present in high percentage in the tungsten arc-lamp in addition to the short wave lengths. I look upon ultra-violet radiation as the most useful method of sterilizing the conjunctival sac.

I treated over 200 cases of trachoma successfully in private in Hong-Kong, there being no ultra-violet ray installation available at the hospital. The time of both doctor and patient is saved and the gratitude of patients after one or two treatments is a pleasure to observe. Most of the patients stated that they had had no treatment which caused them greater relief and comfort soon after the first application.

I am of the opinion that trachoma could be rapidly eradicated from a community or school if an intensive campaign by team work were established, using tungsten arc-lamps, under expert supervision.

ABSTRACTS

I.—PATHOLOGY

- (1) Blegvad, O. (Copenhagen).—Boeck's sarcoid of the conjunctiva. (Boeck's Sarcoid der Conjunctiva). *Acta Ophthal.*, Vol. IX, p. 180, 1931.

(1) The condition known as Boeck's sarcoid of the skin was described in 1899 under the term of multiple benign sarcoid tumours of the skin. It is now recognized as a general affection. In the skin, nodules of varying size develop: from a few millimetres to several inches in diameter. If these are pressed upon by a glass, apple jelly-like nodules, similar to those observed in lupus, but smaller, are seen. The sites of election are the face, back, neck and extensor surface of the arms. Microscopically collections of epithelioid cells with an occasional giant-cell are seen: small round cell infiltration, so characteristic of lupus, is very sparse. In the smaller of the long bones, X-rays show up