

INDIAN SECTION.

A Note on the Treatment of Some Common Leprous Lesions of the Ear, Nose and Throat.

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MY object in writing this short note is to place before readers my own experience with some lines of treatment adopted by me in dealing with these lesions, so that it may serve to stimulate interest in this subject. Our knowledge of the leprosy lesions of the ear, nose and throat, is still far from complete. We have no standard lines of treatment to deal with these lesions which, if left untreated, lead to various disfiguring deformities. This, then, is my only apology for writing this note.

Lesions of the Ear—External Ear—The Pinna.

Two types of lesions are common:—(1) anæsthesia, hyperæsthesia or paræsthesia, either singly or in combination, generally met with in nerve type of cases, and (2) nodules or diffuse infiltrations—in skin type of cases. When sensory disturbances are present, thickening with or without pain or tenderness of either the great auricular nerve, auriculo-temporal nerve, or posterior auricular nerve or of any two of these, can be found; the areas of the pinna supplied by the affected nerve or nerves manifesting the sensory disturbances. Such lesions of the pinna are very easily overlooked as the patients never complain of them. In suspected early cases of leprosy, the pinna should be examined for signs of sensory disturbances, whether such manifestations are present or absent elsewhere.

Treatment.

Painting an aqueous solution of trichloroacetic acid, strength 1 in 5, once in 10 days, is the local treatment generally adopted. This, undoubtedly, serves to clear up the anæsthesia. But, in cases in which marked thickening of any of the nerves supplying the pinna is found, a nerve stretching operation under local anæsthesia, of the affected nerve, affords remarkable relief.

Nodules and Diffuse Infiltrations of the Pinna.

These lesions begin to appear when the disease advances from the nerve type to the cutaneous type and they are due to the direct presence of M-lepræ. It is noteworthy that

these lesions involve only the skin and the subcutaneous tissues, especially of the margins and the lobule, the cartilage of the pinna practically never being involved. This comparative freedom of the cartilage from leprous infiltration is the basis on which the surgical treatment of the nodules is based.

Treatment.

If the nodules are small or the infiltration is not very extensive, painting once in 10 days with an aqueous solution of trichloroacetic acid (strength 1 in 3 or even 1 in 1, depending upon the tolerance of the affected skin) is enough. Or, better still, an intradermal injection into the lesions of $\frac{1}{2}$ per cent. iodised ethyl esters of the hydno-carpus wightiana, using the special intradermal needles, serves a double purpose, viz., local counter irritation and direct action upon the M-lepræ, plus a systemic effect.

If the nodules are large and involve the whole ear margin or if the infiltration is considerable and extends throughout the margin, excision of all the excrescences, using a special curved forceps or clamp, is the best method of treatment. As most of the leprosy workers are familiar with this excision operation it is unnecessary to detail it here.

Auditory Canal.

Leprosy *per se* does not affect the auditory canal.

Middle Ear and Internal Ear.

A close study of the literature on leprosy does not reveal any instance of the direct involvement of either the middle or the internal ear. The middle ear may be involved by a spread from the nose, through the eustachean tubes, and it is not very uncommon to find case of eustachean deafness among B₂ and B₃ cases. But when one considers the number and severity of the lesions of the nasal cavities in B₂ and B₃ cases, at least, and the ease with which the leprous infiltration can extend through the eustachean tube to the middle ear, it is rather surprising that cases of eustachean deafness and other middle ear affections are not more frequent.

Nose.

Almost all the types of skin lesions are met with in the nose. Thus: externally, anæsthetic, hyperæsthetic or paræsthetic areas, hypopigmented patches, erythematous patches and nodules may be present either singly or in combination. Internally, the nasal mucous membrane may show either anæsthesia or hyperæsthesia and corresponding

to the hypopigmented patches with parakeratosis of the skin, there may be dry rhinitis with scabs. In the cutaneous type of case nodules or infiltration of the nasal cavities may be present. These nodules may break down forming ulcers. Such ulcers, by virtue of their concealed situation in a highly septic cavity such as the nose, take a long time to heal and are very difficult to deal with. The nasal septum may be destroyed by the ulcerative process that accompanies the breaking down of nodules or in the secondary nerve stage by absorption or necrosis. In cases with an underlying syphilitic taint, the nasal bones are also absorbed, but in non-syphilitic cases, the nasal bones generally escape and it is the septum which is destroyed. In any case, a flattened nose results.

Dirty, disabled cases with ulcers in the nose generally suffer from myiasis also, the flies being attracted by the foul odour and discharge from the affected nasal cavities.

In cases in which lesions of the face preponderate, severe lesions inside the nose are usually seen. I have seen cases in which the turbinated bones have been destroyed, the maxillary antrums and nasal cavities communicating with each other and forming a big cavity. Destroyed nasal septum is a very common lesion in B_2A_2 , B_3 and B_3A_2 cases. Large nodules in the nasal cavities may swell during reactions and cause obstruction to respiration.

Nose-Pharynx.

Nodules and ulcers are the commonest lesions in this region. Ulcers sometimes cause an erosion of a small neighbouring vessel, giving rise to epistaxis, which may be difficult to treat.

Treatment.

A thorough examination of the nasal cavities with a good speculum is the first essential. I use a small, compact and cheap, ear, nose and throat outfit, supplied by the Medical Supply Association Ltd., of London, and I find it so very useful that I have no hesitation in recommending it to all leprosy workers, specially to those who have to deal with large numbers of advanced skin cases.

For Dry Rhinitis with Scabs.

Irrigation of the nose with warm boracic lotion, 1 in 80, and thorough drying of the nasal cavities with a clean, cotton swab, followed by the instillation of a few drops of iodised glycerine (tr. iodine 1 part, and glycerine 2 parts), once a day will generally suffice. This may be combined with

the painting inside of either 1 per cent. creosoted hydnocarpus oil or $\frac{1}{2}$ per cent. iodised or 1 per cent. creosoted ethyl esters of the same oil.

For Nodules and Ulcers.

Irrigation with warm, 1 in 80 boracic lotion, drying with a cotton swab, and spraying in of a 5 per cent. aqueous solution of chromic acid, using either the "Glaseptic Nebuliser" (P. D. & Co.'s) or the cheaper German apparatus "Triplex," will generally be enough. The chromic acid acts as a mild irritant antiseptic, slightly increases the serous discharge from the ulcers and combining with the inspissated serous discharge, forms a protective coagulum which when dried up, forms a scab. Thus, after spraying the chromic acid solution, on the second day, a big scab will be seen covering the ulcers. This scab, as it dries up further, causes an itching sensation to relieve which, patients generally scratch their noses and try to remove the scabs. It is very important that patients should *not* do this as by disturbing the scab the healing of the ulcers is hindered. At this stage, to relieve the itching sensation and to soften the scab, so that it may come out in bits by itself along with the nasal discharges, I generally spray in, the iodised glycerine solution mentioned already. The glycerine soaks the scab and softens it, and the iodine acts as an antiseptic.

Chromic acid spraying will have to be repeated again as the scabs come away leaving behind partially-healed ulcers. Alternate spraying in of chromic acid solution and iodised glycerine will have to be carried out until all the ulcers heal.

During reactions, as already stated, the swollen and engorged nodules in the nasal cavities and in the naso-pharynx may cause obstruction to respiration. In such cases, to relieve the obstruction, I use the following solution (by spray) which I call for convenience "Ephedrine Co. Spray."

Ephedrine Co.—

R/ Ephedrine, 3 per cent. sol in aqua dist.

Adrenalin, 1 in 1,000 (P. D. & Co.'s).

Atropine sulph, 1 per cent. solution in N. saline. Equal parts of each.

Sometimes, as already mentioned, owing to the erosion of a small artery in the naso-pharynx or to some other cause, intractable epistaxis results. In such cases, "Hæmoplastin" (P. D. & Co.'s) applied to the posterior nares

with a pledget of cotton wool, soaked in it, gives remarkable relief. To be effective, the plugging should be fairly tight. If hæmoplastin is not available, the following cheaper " hæmostatic mixture " might be tried.

Hæmostatic Mixture--

*R*₁ Ephedrine hydrochlor, grs. 5.
 Adrenalin, 1 in 1,000 oz. 1 (P. D. & Co.).
 Tr. ferri perchlor. fort oz. 1.
 Ext. Hammamelis liqd. ad oz. $\frac{1}{2}$.

Naso-pharynx and Pharynx.

Nodules and ulcers are the commonest lesions in these regions and the principles of treatment of these lesions are the same as described before.

The Palate, Fauces and Tonsils.

The hard palate may show sometimes dry, pale and blanched areas roughly corresponding to the depigmented areas on the skin, specially in nerve cases with predominant facial lesions. In cutaneous cases, the hard palate frequently shows small nodules or infiltrated spots and the soft palate, fairly large-sized nodules. These nodules break down and the resulting ulcers render mastication and deglutition painful. When these ulcers heal, they leave behind dark and deeply pigmented scars. In severe cases, the entire soft palate may be destroyed by the ulcers. Perforation of the hard palate is rare among uncomplicated cases, and those that show this lesion usually have an underlying syphilitic taint.

Nodules and ulcers are the commonest lesions on the fauces and the tonsils, and these cause acute dysphagia specially during reactions. The pillars of the fauces may be destroyed by the ulcerative process and the resulting scar tissue may cause a " Stenosis " of the pharyngeal orifice.

Treatment.

The principles of treatment of these lesions are the same as described before, except that these lesions when sprayed with chromic acid solution do not give rise to hard crust formation, as in the nose, and as such require no iodised glycerine application after the chromic.

Tongue.

Nodules and ulcers are the commonest lesions in advanced cutaneous cases (B2 and B3). During reactions, these nodules become swollen and painful, and invariably they break down into ulcers. These ulcers may be so

painful as to render the taking in of any solid food absolutely impossible. I have had two such cases under my care at Cuttack who had to be fed through the nose. In nerve cases with predominant facial lesions, the lingual nerve is sometimes affected, giving rise to loss of the sense of taste. Sometimes, instead of definite nodules, there may be a diffuse infiltration of the dorsum and the margin of the tongue, which condition may be termed "leprous macroglossia."

Treatment.

Gargling, with warm boracic lotion, 1 in 80, or weak Condyl's, followed by the application of glycerinum boracic to the ulcers on the tongue, to be continued, until they become less painful. Then, the chromic acid solution, referred to before, may be painted on the tongue. During the acute stage, when the pain is very severe, chromic acid is not tolerated by some patients and, therefore, some bland application has to be tried. For nodules also, repeated application of the chromic acid solution, after gargling, will be enough. As elsewhere, so on the tongue, healed ulcers leave behind dark pigmented scars.

Larynx and Epiglottis.

Nodules and infiltrations, followed by ulcers, are the usual lesions affecting the larynx and the epiglottis, in highly advanced cutaneous cases (B3) and (B3-A2). As usual, these nodules, during reactions, become swollen and cause acute dysphagia and sometimes temporary aphonia, too. It is noteworthy that these nodules and infiltrations involve only the false vocal cords, the true vocal cords generally escaping.

Treatment.

For laryngeal nodules, "Ephedrine Co." spray, followed by 5 per cent. chromic acid solution spray once a day, or if necessary, even twice a day, might be tried. Frequent use of the Ephedrine Co. spray during reactions reduces congestion of the larynx and may help to avoid a tracheotomy. If swollen epiglottis obstructs respiration and does not yield to repeated Ephedrine Co. sprays, then scarification of the epiglottis and the surrounding tissues may be tried. But, if no relief is obtained, even then tracheotomy or laryngotomy must be done to save life.

REFERENCES.

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- (2) "Tropical Diseases Bulletins," special Leprosy numbers.
- (3) "Leprosy Notes and Reviews," by B. E. L. R. A., London.