Leprosy of the Larynx[1]

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The upper respiratory tract is one of the commonest sites of involvement in leprosy. For the first time in India a detailed study of the pathology of leprosy based on 37 autopsies was given by Desikan and Job (1). They examined the larynx in nine cases. No gross changes were found but microscopic lesions were seen in eight cases. Yoshie (4) found laryngeal lesions in 64.7% of lepromatous cases. Mitsuda and Ogawa (2) studied gross pathology in 150 autopsy cases and found that laryngeal stricture was the cause of death in 1.3% of cases.

In an analysis of 280 cases of varied lesions of the larynx we encountered five cases of leprous involvement of the larynx.

MATERIALS AND METHODS

This report deals with the biopsy material of five cases of lepromatous leprosy with laryngeal involvement.

Age, sex, duration and type of leprosy. All were Hindu males. The youngest patient was 19 years old and the oldest was 40; the average age being 32.8 years. All of these patients had widespread involvement of the skin and cutaneous nerves. The duration of general symptoms varied from 9 months to 20 years. In addition they all had hoarseness of voice. One patient had had general symptoms for nine months with hoarseness of 1.5 months' duration. In the other four cases the period of hoarseness was present for an average of two years. All were lepromatous cases (Table 1).

RESULTS

Gross appearance. The epiglottis was affected in all five cases. In two cases one vocal cord was affected while the pharynx and nasal septum were also affected in one of these cases. In another two cases both vocal cords were involved. In one of the cases with both vocal cords involved the lesion had also extended into the pyriform fossa. In the fifth case where vocal cords were spared the lesion was confined to the aryepiglottic fold and epiglottis. One case had nodular thickenings over the epiglottis and vocal cord. In the remaining four cases there was induration and diffuse thickening of the various sites of involvement.

Histopathology. The appearances were similar in all cases. The lining epithelium was stratified squamous and was atrophic at places. The subepithelial tissue showed diffuse infiltration by foamy macrophages (Fig. 1). Such dense collection of macrophages extended around the mucus glands and nerve twigs (Fig. 2). No granulomata was seen. Acid-fast bacilli were present in large numbers within these histiocytes.

DISCUSSION

Desikan and Job (1) found no gross pathologic changes in their autopsy study. However, in our material gross involvement of the larynx was seen in all the cases. They found lepromas with collections of foamy macrophages. We could not identify any granulomas in our material but found diffuse infiltration of the tissue by foamy macrophages.

Prabhu (3) reported nodulation of the tongue and granulomatous infiltration of tonsil and uvula. Maximum involvement of the larynx, where leprous lesions were present in the epiglottis, both vocal cords, and pyriform fossa were seen in our case with the history of 20 years' duration. Nodular thickenings in the larynx, pharynx, epiglottis and nasal septum perforation were present in the case having a history of nine months' duration. The latter case possibly reflects a patient with very poor immune response.

SUMMARY

Five instances of lepromatous leprosy involving lesions of the larynx were encountered among a series of 280 laryngeal lesions. These are briefly described as involving the epiglottis in all cases, vocal cords in two,

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and extension into the pyriform fossa in one instance.

RESUMEN

En una serie de 280 lesiones laríngeas, se encontraron cinco casos de lesiones de laringe producidas por lepra lepromatosa. Estos casos se describen brevemente como comprometiendo la epiglotis en todos los casos, las cuerdas vocales en dos y extendiéndose hacia la fosa piriforma en uno.

RÉSUMÉ

Cinq cas de lèpre lépromateuse avec atteintes du larynx ont été rencontrés dans une série de 280 lésions laryngées. Ces cas sont brièvement décrits. Sans exception, ils atteignaient l'épiglotte; les cordes vocales étaient affectées dans deux cas, et on a constaté une extension dans la fosse pyriforme.

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TABLE 1. *The clinical features and histopathologic findings of five cases of lepromatous laryngitis.*

			Neurological Manifestations		Hoarseness	Laryngoscopy And Rhinoscopy					Histopathology	
S.No.	Age	Sex	Symptoms	Duration	Duration	Nose	Epiglottis	Pharynx	Pyriform Fossa	A. E. Region	Vocal Cords	Lepra Cells	Nerves Involved
1	19½	M	Gloves And Stocking Anaesthesia	9 Mths	1½ Mths	Septal Perforation	Thickened	Nodules	–	–	Rough Patch Rt.	A.F.B.+	+
*2	40½	M	Generalized Hypopigmented And Anaesthetic Patches	2 Yrs	2 Yrs	–	Nodules	–	Nodule Lt.	–	Both Thickened	A.F.B.+	+
3	35½	M	Generalized Anaesthetic Patches Atrophy Of Hands And Feet	10 Yrs 5 Yrs	2 Yrs	–	Nodular	–	–	Nodular	–	A.F.B.+	+
4	40½	M	Generalized Anaesthetic Patches	12 Yrs	2 Yrs	–	Thickened	–	–	–	Both Thickened	A.F.B.+	+
5	30½	M	Generalized Hypopigmented Anaesthetic Patches Bilateral Ulnar Nerve Palsy	8 Yrs 4 Yrs	2 Yrs	–	Thickened	–	–	–	Both Thickened	A.F.B.+	+

*X-Ray Chest Showed Nodules In Right Lung Field

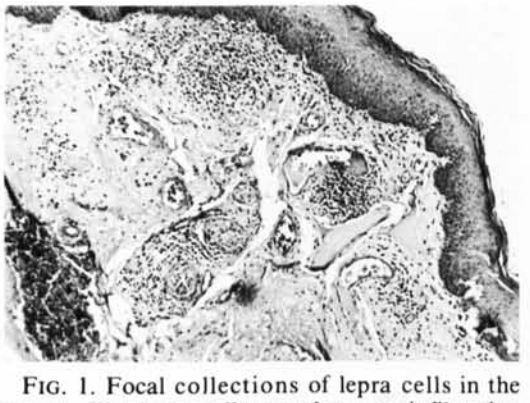

FIG. 1. Focal collections of lepra cells in the stroma. The lepra cells are also seen infiltrating the nerve bundles. H & E, ×66.

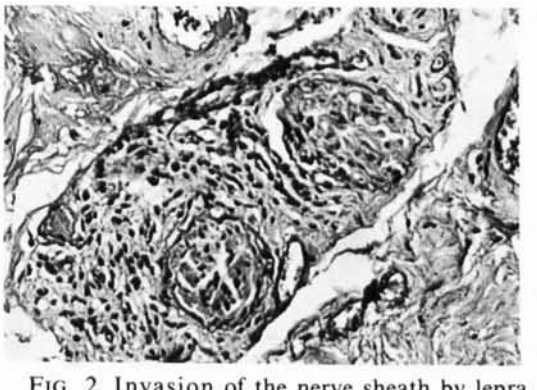

FIG. 2. Invasion of the nerve sheath by lepra cells. H & E, ×225.

Note: Illustrations and table received too late for in-manuscript inclusion.—Ed.