

Routine Examination of Nasal Smears in Leprosy.

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T. N. ROY and S. N. CHATTERJI.

BEFORE entering into the subject we should give an explanation to our readers why we have selected this for an article while all the other workers are dealing with the more important sides of the disease. It is because it seems to us that the results of the examination of nasal smears have a strong bearing on the diagnosis, prognosis, treatment and after-treatment of cases of leprosy. More than once we had to revise our diagnosis as to the type of the disease, and consequently the prognosis turned from good to bad, the main treatment required some additions and alterations and the after-treatment was more prolonged than we had calculated before.

During the last year we had a total number of 929 new cases attending our out-door clinics, out of which 140 patients had their nasal smears positive bacteriologically, and a table is given below to show their different grades in comparison with our findings in skin smears.

	Skin +	Skin ++	Skin +++	Skin ++++
Nose +	10	39	14	1
Nose ++	2	16	26	1
Nose +++		6	14	
Nose ++++		7	4	

We think that the cases with numerous skin lesions are less dangerous to the community than the more innocent-looking patients discharging numerous bacilli in their nasal secretions, because cases with erythematous patches and nodules on the body, face and ears are usually repulsive to the public, and people always shun their association, but they will mix freely with those patients who do not look like lepers at all. Thus we find many innocent-looking infectious patients working as professors, teachers, clerks, servants and maidservants, cooks, sweetmeat vendors or hawkers. They are found in all walks of life, and (more or less) in all societies, and nobody is going to object because nobody knows what it is, unless the disease grows into an advanced

condition, producing some deformities and ulcerations. One bill collector was found to be a B2 case. He was not looking bad, but his nasal smears were positive. A case like this should be rather designated as a distributor of Hansen's bacillus than a bill collector.

In our out-door clinics, on being asked their family history and the source of contact, the patients in most cases deny a family history or any contact with a leper. But so long as we are travelling in public vehicles, taking our meals in hotels and restaurants, or allowing the leper beggars to loiter near our houses, we cannot dare to say we have not come in contact with an infectious leper, or that we have not soiled our clothing with their discharges, or have never been served by a nose-positive khansama. The most striking example which came to our clinic was a sweeper driving a scavenger car. Accidentally he was found in the street, and the Health Officer in charge was requested to send him for treatment. Apparently he was a very advanced case of leprosy, and the diagnosis was clearly written on his face. In spite of this fact, and in spite of the foul smell coming from the ulcerated nose which almost turned the stomach of everybody present in the out-door clinic, he had not been noticed as an infectious leper by the Health Officer or by the Superintendent, and his co-workers also did not raise any serious objection. Neither was he inclined to believe our diagnosis, nor to go to Gobra Hospital. His argument was that as he had been in this condition for over ten years, it was not serious, and he should be allowed to continue his work—and thus go on infecting other persons with his nasal secretion.

Now let us turn to the main subject. Two cases almost evaded our diagnosis, and had we not taken the nasal smears for routine examination, we should never have known the serious mistake we would have made in our diagnosis.

Case I.—Jnan Chand came to our laboratory with two symmetrical scar marks on the shoulders. The history was that he had depigmented patches on the shoulders, which were treated with some caustic application, and due to that these scars have resulted. Slightly depigmented patches were found spreading from the margin of these scars, and besides these there were anæsthetic patches on the right forearm. He was diagnosed as an A1 case, but on examination of the nasal smear we found numerous acid-fast bacilli (+++++) in it. This was shown to Dr. Muir, and according to his suggestion, a clip was made from the scar tissue over the right shoulder, and the smears were found

bacteriologically positive (++) . So that from A1* the case turned into a B2 to B3 type.

Case II.—The second case, Kalicharan, came with slightly depigmented patches on the body and face, some of them were anæsthetic. There was no mark to suggest that it was a “ B ” case. As a routine measure, a smear was taken from his nose, and was found bacteriologically positive (++) , and this was confirmed by repeated examinations. According to our previous experience we expected that his skin would also be positive. But we failed to find acid-fast bacilli, although we tried from many places. In spite of the fact that the skin is negative, it is a B1 to B2 case.

From the table one can find that there are many patients who are very strongly positive in both the nose and the skin. There are some among them who do not look very bad externally, and as this is a chronic form of disease, the patients carry on their daily work and mix with people without ever being objected to. There are other cases which look very bad, but as most of them come from the beggar class, they are usually found squatting in the streets or loitering near houses without any prohibition. These patients easily spread the disease to the people of the same community and to the children and other persons walking barefooted. There is still another class of patient who is very strongly positive in the nose, but whose skin does not look obviously leprous. These are the most innocent looking patients, and they travel in public vehicles, and take part in public functions, dine in hotels, and enjoy public theatres and bioscopes, but we do not know how many they are infecting daily. If a patient like Jnan Chand is travelling in the same compartment of a train or bus, or working as a servant or a cook, even a specialist in leprosy will have no reason to suspect or object to him.

So the importance of the routine examination of nasal smears comes in for the proper diagnosis of a case whether it be an advanced or an early case, or a case just suspected of leprosy. And necessarily, if a case be strongly positive in the nose the prognosis becomes grave, and he requires the addition of nasal treatment. The after-treatment should be continued for a much longer period, and before a patient is declared cured his nasal smear should be examined again and again, although the smears from the skin may be negative long before.

* According to Dr. Muir's classification.