DISCUSSION
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This study presents numerous facts of clinical interests, because of their complexity. Surgical resection of underlying bone in plantar ulcers in leprosy was done in 33 plantar ulcers in 30 patients.

The incidence of plantar ulcers in the study is 14.3% of the cases attended out patient department of Leprosy, which is little higher than the other workers. The incidence of plantar ulcers as estimated by Hemerikx (1959) was 9.3% and Srinivasan and Charamondra (1978) 10 to 20%. The ulcers were found more in non-lepromatous leprosy 83.3%, which has been also observed by Belisare et al (1979) and Prasad et al (1981). It is probably due to early involvement of nerves leading to anaesthesia of the feet.

The male to female ratio was found to be 1.4 : 1 and maximum cases (73%) were above the age of 40 years, which coincide with the findings of Keservani (1976) and Kush Kumar (1979). All the patients belongs to poor socio-economic status with no significance in rural or urban population. The
finding was confirmed by Reservani (1976), Nigam et al (1977). The most of cases were beggars by occupation and not even a single case detected from higher social status.

The criteria of the selection of patients for resection of underlying bone was mainly based in the cases of plantar ulcers of leprosy patient in which frank discharge from the ulcers ceased with the conservative treatment.

In the present series 45.5% of cases gave history of external trauma like, thorn prick, nail prick and stone prick as one of the causative factor for the plantar ulcers, which is also confirmed by Price (1959), Ross (1963), and Srivastava and Reservani (1976). All the patients in the present series were observed having complete or partial sensory loss in the feet. 50% cases had loss of sensation in the feet upto 2 years of duration which is in accordance with Nigam et al (1977).

In the present series 79% of the cases reported within 6 months of ulcer formation, while lhamendra et al (1955) reported only 50% of his cases reported within 3 years of ulceration. This might be due to early motivation of the leprosy patients for treatment by leprosy workers. In the
present series 80% of the cases had already taken treatment which has been also confirmed by Dharmandra et al (1955).

The highest number of the plantar ulcers (33.4%) were found over the head of the 1st metatarsal region, then the phalanx (18.2%) and the least number of ulcers found on 3rd and 4th metatarsal head region, only (9.09%). It has been also confirmed by Keserwani (1976) but he had not included ulcers over the phalanx. The 4th metatarsal head was observed to be the least common site for ulceration, while phalanx were the 2nd most common site of ulceration as advocated by Mukherjee (1977) and Srinivasan and Dharmandra (1978).

The associated deformities like foot drop and hallux valgus were found in 40% of the cases, but it has not affected such as a contributory factor for formation of the ulcers. We had found (60.6%) various type of deep ulcers and (39.4%) superficial in nature. The purulent discharge was present only in 54.6% of cases.

The radiological changes in the underlying bone was present in 90% of cases having absorption of phalanges of toes in 60%, destruction of bone and joint in 43.3%, sclerosis in 13.3%, diffuse rarefaction
only in 6.6% and osteitis in 33.3%. It indicates that the infection in bones might be main cause for non healing of ulcers. The importance of surgical resection of underlying bone in plantar ulcers is because of fact that if such disease bone is taken out it will facilitate the healing of ulcers by two way. One main factor is pressure point from within is removed and secondly diseased bone is taken out. The resection of bone has been advocated by Bhasin & Antia (1972), Anderson (1973), Srivastava and Kosarwani (1976), Kusum Kumar (1979) and Patil et al (1981).

In the present series, the bone resection was done by plantar approach in 39.4% of cases in which the bone were lying bare in the ulcers. 60.6% of cases were subjected for dorsal approach to avoid the contamination of surgical wound from the infected ulcer site and for better exposure; in these cases bone were not lying bare in the ulcer.

The ulcers healed in 3 weeks time in 36.4% of cases while 73.6% of the cases took upto 6 weeks healing time.

The results in the present series were good in 72.8%, fair in 27.2% and in none of the cases poor results were noted. The recurrence was not observed during the follow-up of 3 months to 1 year of time.
Bhasin and Antia (1972) reported 62.5% good results and Srivastava and Keservani (1976) achieve 95.7% of good results and 14.29% fair results, whereas Kush Kumar (1979) had obtained 92.1% good and 7.9% fair results. The results are slightly inferior to previous workers because previous workers had used only dorsal approach. But in the present series result were as good as advocated by previous workers in the cases which were subjected for the dorsal approach.

Both the plantar and dorsal approach were evaluated and the dorsal approach was found more suitable than plantar approach. This coincides with the observation of Bhasin and Antia (loc it). Plantar approach had disadvantages like inadequate exposure while excising the underlying bone and delay in post operative wound healing.

The results of present series which are as good as given by previous workers, gives a strong indication in the treatment of plantar ulcers in leprosy by resection of underlying bone.

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