

Histoid Hansens – The Current Perspective

Dr. Jahnavi. I¹, Dr. Sirisha. V², Dr. Udaya Kumar. B³, Dr. GeetaKiran. A⁴

Department of DVL and department of Microbiology, Gandhi Medical College, Secunderabad, India.

¹ Associate professor of Microbiology ² Resident, department of DVL

³ Professor, department of DVL ⁴ Professor and HOD, department of DVL

Abstract: Histoid leprosy, once thought to occur in patients on dapsone monotherapy is a well recognised entity also occurring in patients after multidrug therapy, as well as denovo. Since it resembles many conditions like dermatofibromas, neurofibromas, molluscum contagiosum, sarcoidosis etc., it is likely to be missed out and hence forms the reservoir of infection. Here we report 5 cases of denovo histoid leprosy out of whom 2 patients developed type 2 reaction. The diagnosis was confirmed by slit skin smears and histopathological examination.

Keywords : denovo, histoid leprosy, spindle shaped cells, type 2 reaction.

I. Introduction

Histoid leprosy is a form of multibacillary hansens characterised by cutaneous and subcutaneous nodules and/or plaques over apparently normal skin with unique histopathological and bacteriological findings. It was first described by Wade¹. The incidence varies from 1-2%². It can occur after dapsone monotherapy, after multidrug therapy or denovo. The characteristic histopathological findings are histiocytes packed with numerous acid fast bacilli arranged in whorls or storiform pattern. A thorough knowledge and early detection is needed for this uncommon variant of leprosy which can pose a threat to our elimination drive.

II. Case Reports

Case 1: A 60 year old male patient presented with smooth dome shaped papules and nodules over trunk and extremities of 6 months duration (Fig 1). Bilateral ulnar, radial cutaneous and lateral popliteal nerves were enlarged. Glove and stocking anaesthesia was present. Ear lobule infiltration was present (Fig 2). Madarosis was present. Slit skin smear (SSS) showed a bacteriological index (BI) of 5+. Histopathological examination (HPE) showed thinned out epidermis with storiform pattern of histiocytes and FiteFaraco stain showed heavy bacillary load (Fig 3&4).

Case 2: A 35 year old male patient presented with multiple skin coloured nodules on the trunk and upper extremities of 8 months duration (Fig 5). Bilateral ulnar, radial cutaneous and lateral popliteal nerves were enlarged. Sensations to touch and temperature were decreased over lower parts of both legs and dorsum of feet. Ear lobule infiltration was present. SSS showed BI of 5+ (Fig 6). HPE showed spindle shaped cells arranged in storiform pattern and some vacuolated cells. 2 months after initiation of multidrug therapy (MBMDT) he developed red painful skin lesions with fever and joint pains. Histopathology from the lesions was consistent with erythema nodosum leprosum (ENL). The patient had no recurrence of ENL after the first episode.

Case 3: A 34 year old male patient presented with skin coloured papules and nodules over trunk and upper limbs of 5 months duration and tender nodules of 3 days duration (Fig 7). Bilateral ulnar and radial cutaneous nerves were enlarged and tender. There was no sensory loss. Ear lobule infiltration was present (Fig 8). SSS showed BI of 4+. HPE from skin coloured papule and tender erythematous nodule was consistent with histoid hansens and ENL respectively. The patient was later lost to follow up.

Case 4: A 40 year old male patient presented with multiple skin coloured to erythematous papules and nodules (Fig 9&10) of 3 years duration which was misdiagnosed as allergic contact dermatitis, sarcoidosis etc and was treated with steroids before he presented to us. Bilateral enlargement of ulnar nerves was present. There was no sensory loss or ear lobule infiltration. SSS showed a BI of 6+. Biopsy was consistent with histoid hansens.

Case 5: A 45 year old male patient presented with multiple skin coloured papules and nodules over trunk, face, buttocks and extremities of 4 months duration (Fig 11). Bilateral ulnar, radial cutaneous and lateral popliteal nerves were enlarged. Ear lobe infiltration was present. Glove and stocking anaesthesia was present. SSS showed BI of 4+. HPE was consistent with histoid hansens (Fig 12).

There was no prior history of dapsone monotherapy or multidrug therapy (MDT) in any of the patients. All the patients were started on MBMDT and those with ENL reaction were treated with tapering doses of steroids. One patient was lost to follow up.

III. Discussion

Histoid Hansens is considered by some as a variant of lepromatous leprosy. However according to Sehgal, histoid is a distinct form of leprosy and should not always be considered as a variant of LL Hansens³. The incidence of histoid Hansens in various studies in India ranged from 2.79 - 3.60⁴. As suggested by Palit and Inamadar, histoid form could serve as a reservoir of leprosy and as a source of new cases.

The 5 cases of histoid Hansens in our study were seen over a period of 18 months. All the cases were males with an age range of 34 - 60 years. Sehgal and Srivastava reported that histoid leprosy is more frequent in males than females⁵. There was no prior history of either dapsone monotherapy or MDT in any of the patients. In a study by G Kalla et al 17 cases out of 25 histoid Hansens (68%) presented *denovo*⁶ while it was 75% in a study by Bhutani et al⁷. The number of cases of histoid Hansens presenting *denovo* seems to be on the rise as reported in various studies. The number of lesions ranged from 20 to more than 50 in our study. Ear lobe infiltration was seen in 4 patients and madarosis in a single patient. A noticeable feature in some patients is the persistence of the eyebrows⁸. Trunk and upper limbs were the common sites affected while facial lesions were seen in only 1 patient. The lesions are usually located on the back, buttocks, face, extremities and over the bony prominences, especially around the elbows and knees⁹. Palms and soles are usually unaffected in histoid Hansens⁹. Ulnar nerve was commonly enlarged in all the patients which was in concordance with a study by G Kalla et al. ENL which is supposedly uncommon in histoid Hansens was seen in 2 cases, with onset after 2 months of MDT in one patient and prior to MDT in the other. In a study by Mendiratta et al 27% had an episode of ENL while Kaur et al reported 40% of reaction rate among histoid Hansens¹⁰. BI ranged from 4+ to 6+. Histopathological examination in all the cases showed spindle shaped cells arranged in storiform pattern with positive fitefaraco stain.

IV. Figures



Figure 1 : smooth dome shaped papules and nodules over back and upperlimbs



Figure 2 : Papules and nodules over ear lobe

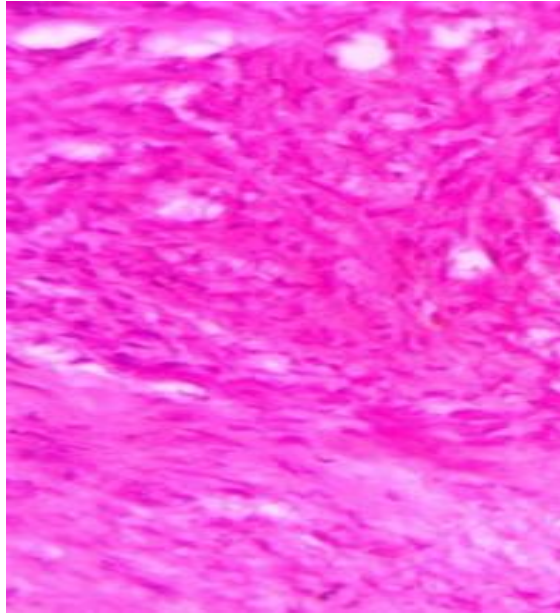


Figure 3 : H&E 40x showing spindle shaped cells in whorls

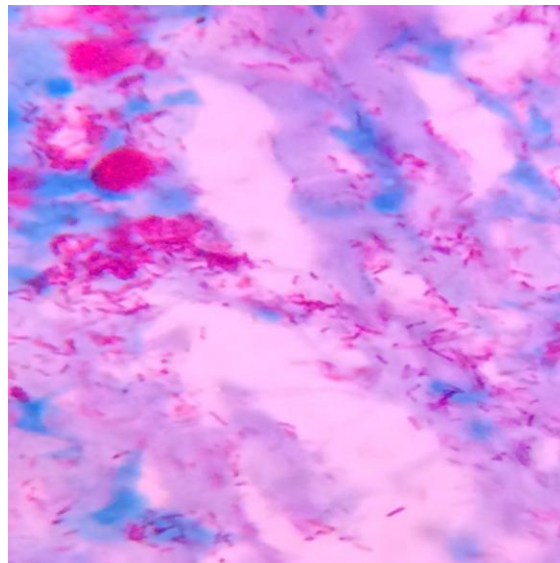


Figure 4 : FiteFaraco stain showing loads of AFB



Figure 5 : Histoid lesions and ENL lesions on the trunk

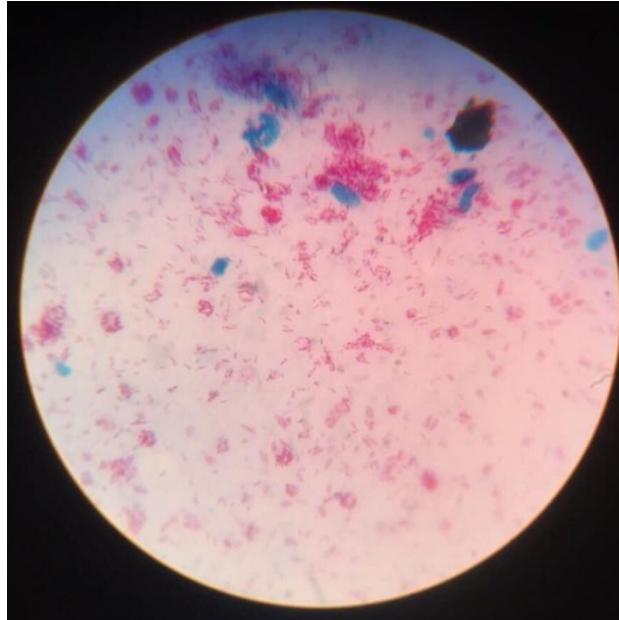


Figure 6 : Slit skin smear showing BI of 5+



Figure 7 : Histoid nodules with central umbilication and ENL lesions on the trunk



Figure 8 : Bilateral ear lobule infiltration



Figure 9 : Erythematous papules and dome shaped nodules over back



Figure 10 : Erythematous papules over left upper limb



Figure 11 : Histoid lesions over face, trunk and buttocks

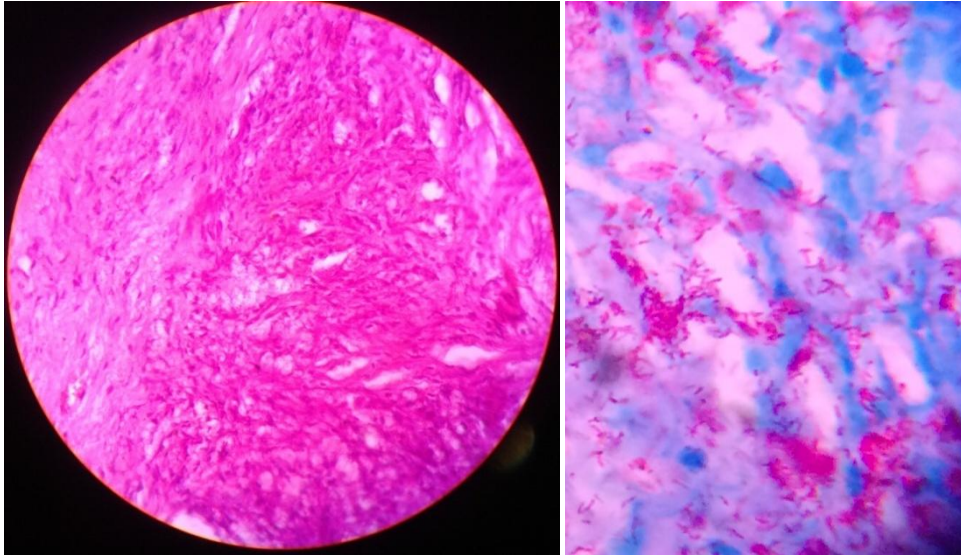


Figure 12 : H&E 40X showing whorls of spindle shaped cells with positive FiteFaraco staining

V. Conclusion

Our observation defy the earlier established cause of histoidhansens and is more in concordance with the recent proposition of histoidhansens arising de novo. It can simulate many other conditions thereby leading to misdiagnosis and hence forming a potential source of infection in the community. Presentation of 5 cases in a short span of 18 months signifies an increase in its incidence requiring larger studies over long duration to confirm this observation.

References

- [1]. Wade HW (1963) The histoid variety of lepromatous leprosy. *Int J Lepr* 31: 129-43.
- [2]. Sehgal VN and Srivastava G (2004) *Histoid Leprosy*. 3rd ed. New Delhi: Jaypee Brothers Medical Publishers, 12.
- [3]. Sehgal VN, Aggarwal A, Srivastava G, Sharma N, Sharma S (2005) Evolution of histoid leprosy (de novo) in lepromatous (multibacillary) leprosy. *Int J Dermatol* 44: 576-578.
- [4]. S. R. Annigeri, S. C. Metgud, and J. R. Patil, "Lepromatous leprosy of histoid type," *Indian Journal of Medical Microbiology*, vol. 25, no. 1, pp. 70-71, 2007.
- [5]. Sehgal VN, Srivastava G. Histoid leprosy – a prospective diagnostic study in 38 patients. *Dermatologica*, 1988; 177:212-217.
- [6]. Kalla G, Purohit S, Vyas MC. Histoid, a clinical variant of multibacillary leprosy: report from so-called nonendemic areas. *Int J Lepr Other Mycobact Dis* 2000; 68: 267-271.
- [7]. Bhutani LK, Bedi TR, Malhotra YK, et al. Histoid leprosy in north India. *Int J Lepr Other Mycobact Dis* 1974; 42: 174-181.
- [8]. Price EW, Fitzherbert H. Histoid variety of lepromatous leprosy. *Int J Lepr* 1966; 34: 367-374.
- [9]. Sehgal VN, Srivastava G, Singh N, Prasad PV. Histoid leprosy: The impact of the entity on the post global leprosy elimination era. *Int J Dermatol* 2009; 8:603-10.
- [10]. Kaur I, Dogra S, De D, Saikia UN. Histoid leprosy: A retrospective study of 40 cases from India. *Br J Dermatol* 2009; 160:305-10.