

Original Research Article

Analysis of cases of dermatological referrals and their systemic correlation in a tertiary care hospital in Gangtok: a prospective study

Rukma Lall Sharma¹, Rekha Sharma^{1*}, Forhad Akhtar Zaman²

¹Department of Dermatology, ²Department of Community Medicine, Sikkim Manipal University, Gangtok, Sikkim, India

Received: 05 September 2018

Accepted: 05 October 2018

***Correspondence:**

Dr. Rekha Sharma,

E-mail: dj_rekha@yahoo.co.in

Copyright: © the author(s), publisher and licensee Medip Academy. This is an open-access article distributed under the terms of the Creative Commons Attribution Non-Commercial License, which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

ABSTRACT

Background: Practice of dermatology in a teaching hospital is not merely limited to inpatient and out patients' management but also boost up the clinical knowledge of young medical graduates and medical students. Many dermatological diseases might be directly or indirectly associated or related with the primary diseases for which the patient is admitted in the hospital or it may also be the dermatological manifestation of systemic diseases.

Methods: The aim of the study was to analyze the type of dermatological diseases referred from the indoor patients of various departments and to identify its relation to systemic diseases. Consecutive sampling was applied on 297 referrals of indoor patients from various other specialties with dermatological disease.

Results: Out of 297 referrals majority, 145 were from the department of medicine and only one, the least number, from Gastroenterology. Maximum number of cases that encountered was the viral infection with 39 cases. 128 patients had dermatological manifestations of primary diseases or directly or indirectly related to it and the rest 169 fell in unrelated group.

Conclusions: Dermatological referrals from other specialties was noted to be an eye opener to the no dermatologist and beneficial to the patients in terms of providing proper guidance and evidence based treatment avoiding unnecessary investigations. This also emphasizes the need for a proper training of young non dermatologists.

Keywords: Dermatological referrals, Systemic correlation, Gangtok, Sikkim

INTRODUCTION

Practice of dermatology in a teaching hospital is not merely limited to inpatient and out patients' management but also boost up the clinical knowledge of young medical graduates and medical students.¹ Although dermatology is primarily an outpatient management speciality the inpatients of other specialities do also frequently require dermatologists opinion for various types of skin diseases whether they are associated with their systemic diseases or as the independent clinical entities.^{2,3} Accordingly we have been receiving substantial number of referrals for our opinion and

subsequent clinical management of skin diseases of inpatients from various other departments on everyday basis as reported in various earlier studies.^{2,4,5} Under certain circumstances even the revised line of treatment of some of the diseases offered by the dermatologist has made a perceptible difference and positively modified the prognosis of the disease.^{2,5} It is also well known that many dermatological diseases might also be directly or indirectly associated or related with the primary diseases for which the patient was admitted in the hospital or it may also be the dermatological manifestation of systemic diseases.^{6,7} Since there is no a single publication on any such clinical correlation analytical study of

dermatological ailments vis a vis systemic diseases amongst these referrals so far we made an attempt to undertake this as well at the present study.

Aim and objectives

- To analyze the type of dermatological diseases referred from the indoor patients and its department wise classification.
- Analyse these diseases into different category dermatoses.
- Identify and differentiate these dermatological diseases into related or unrelated to systemic diseases for which the patient was admitted.

METHODS

Consecutive sampling was applied. It is a study conducted on 297 consecutive referrals of indoor patients from various other specialties with dermatological disease at a teaching hospital in Gangtok between August 2017 and February 2018. Chi square test was applied to find out any statistical significance.

RESULTS

In the present study we analysed 297 referrals in which an effort was made to classify types of dermatoses and came across following patterns of distribution with respect to different specialities (Table 1 and 2).

Table 1: Distribution of pattern of dermatoses referred from various departments and its association with primary systemic disease.

Referred departments	Associated with primary systemic disease	Not associated with systemic disease	Total	Chi square test
Medicine	71	74	145	P=0.0605 Not significant
Surgery	9	18	27	
Obstetrics and gynaecology	8	9	17	
Paediatric	17	12	29	
Orthopaedics	0	16	16	
Psychiatry	1	11	12	
Ophthalmology	3	0	3	
ENT	10	6	16	
Paediatric surgery	1	1	2	
Medical ICU	5	13	18	
Surgical ICU	2	3	5	
Neonatal ICU	0	3	3	
Neurosurgery	0	3	3	
Gastroenterology	1	0	1	
Total	128	169	297	

Table 2: Distribution of dermatoses as per etiological agents/causes.

Dermatoses with the etiological agents/causes	Total
Viral infections/ rashes	45
Fungal infections	36
Bacterial infections	15
Eczema and pompholyx	15
Urticaria	10
Drug allergies	10
Lichen simplex cheonicus	8
Seborrhic dermatitis	10
Miliaria	8
Napkin rashes	9
Insect bites	8
Palmoplantar keratodermas	7
Chilblains	7
Corns	7
Candidial thrush	7
Urethritis and epididymorchitis	6
Rosacea & perioral dermatitis	6

Continued.

Dermatoses with the etiological agents/causes	Total
Apthus ulcers	4
Contact dermatitis	10
Pigmented purpuric dermatoses	6
Angular cheilitis	6
Geographical tongue	3
Alopecia areata	3
Haemangiomas	2
Scabies	2
Post inflammatory hyperpigmentation	8
Ichthyosis	2
Basal cell carcinoma	1
Nrofibromatosis	2
Lichen planus	4
Psoriasis	2
Pibaldism	1
Others	27
Total	297

Out of 297 referrals majority, 145, were from the department of medicine and only one, the least number, from Gastroenterology. The second highest number 29 was from the department of paediatric. Details of the breakup of the referrals are given in Table 1. It is worth mentioning the fact that maximum number of cases we encountered were the viral infection with 39 cases which included herpes simplex, herpes zoster, verruca vulgaris, molluscum contagiosum, viral exanthematous rashes including measles and other viral rashes. Second most common was the bacterial infection and then the fungal infection (dermatophytes and candida thrush). Youngest age of the patient referred for dermatological consultation was a neonate with piabaldism and oldest one was of the age of 85 years old male. It is important to note that a case of basal cell carcinoma in the face of a male patient was referred from the respiratory medicine to dermatology department as insect bite. Subsequently the line of treatment was completely changed after we furnished our diagnosis. It was a great eye opener to the concerned referring department and a great benefit to the patient. Also as per the aim of our study we have also noted that 128 patients had dermatological manifestations of primary diseases or directly or indirectly related to it and the rest 169 fell in unrelated group.

DISCUSSION

In the study we have seen that 145 referrals were from the department of internal medicine and majority of them were with erythematous rashes and it was noted that the non-dermatologists could only make 30 percent of diagnoses correctly but common dermatological disorders were often misdiagnosed. Similar observation was also made in an earlier study.^{2,3,5} Rest of other 70 percent diagnoses had to be revised followed by a complete alteration in treatment strategy. Similar studies done in Eastern India, and Northern India revealed similar

statistical reports with changes with respect to categorisation of dermatological consults, being mostly from the internal medicine department which is closely followed by nephrology and paediatrics departments.^{2,5} Similarly another study of 464 patients showed that only 32 percent dermatological diseases were correctly diagnoses by the non-dermatologist doctors.⁸ In our present study we also have similar observation. As a result all the studies recommended that an extensive training is necessary for young graduates in dermatology. Also another study conducted on 1560 referrals showed that majority of cases referred to dermatology were subjected to unnecessary investigations and treatments because of wrong diagnoses by the non-dermatologists of other specialties.⁴ Accordingly the authors reinforced their opinion that MBBS students also need to be imparted with more vigorous training in dermatology.

A retrospective study of 971 indoor referrals to dermatology showed almost two thirds (61 percent) of diagnoses made by other departments were wrong and it was opined that a continued and sustained refresher training was an absolute necessity for the residents doctors.⁵ In one study 464 referrals were analyzed where it was noted that only 32% non-dermatologists were able to make correct diagnosis, therefore it was stated that a rigorous training was necessary to the resident doctors in dermatology.⁸ In a Portuguese university hospital study of 282 inpatients referrals were analysed and noted that 33.7% referrals from internal medicine. It was reported that non dermatologists missed most of the diagnosed.⁹ Most studies showed quite a few number of drug related manifestations which were not found in our study.^{10,11}

CONCLUSION

In our study it has been noted that majority of referrals were from the department of General Medicine and

Pediatrics but in large number of cases the diagnoses made by the non-dermatologists grossly differed from that of the final diagnoses offered by the dermatologists. This in fact was noted to be beneficial not only to the patients but also to the non-dermatologists. Dermatological referrals can also offer a quality treatment to the patients and an eye opener to other specialties doctors that dermatological illness many a times can also be a dermatological manifestation of systemic illnesses. A single case of so called insect bite which turned out to be a basal cell carcinoma after dermatological consultation also justifies the need for refresher course training to young graduates in dermatology.

ACKNOWLEDGEMENTS

We would like to acknowledge all the patients who provided clinical data to bring out this research work.

Funding: No funding sources

Conflict of interest: None declared

Ethical approval: Not required

REFERENCES

1. Mancusi S, Neto CF. Inpatient dermatological consultations in a university hospital. Clinics. 2010;65(9):851-5.
2. Sen A, Chowdhury S, Poddar I, Bandyopadhyay D. Inpatient dermatology: Characteristics of patients and admissions in a tertiary level hospital of eastern India. Indian J Dermatol. 2016;61:561-4
3. Ahmad K, Ramsay B. Analysis of inpatient dermatologic referrals: insight into the educational needs of trainee doctors. Ir J Med Sci. 2009;178:69-71.
4. Balai M, Gupta LK, Khare AK, Mittal A, Mehta S, Bharti G. Pattern of inpatient referrals to dermatology at a tertiary care centre of South Rajasthan. Indian Dermatol Online J. 2017;8(1):25-8.
5. Walia NS, Deb S. Dermatology referrals in the hospital setting. Indian J Dermatol Venereol Leprol. 2004;70:285-7.
6. Davila M, Chrisenson LJ, Sontheimer RD. Epidemiology and outcomes of dermatology inpatient consultations in a Midwestern U.S. university hospital. Dermatol Online J. 2010;16(2):12.
7. Penate Y, Guillermo N, Melwani P, Martel R, Borrego L. Dermatologist in hospital wards: an 8 year study of dermatology consultations. Dermatology. 2009;219(3):225-31.
8. Raikar DR, Manthale NS, Raikar SR. Inpatient dermatological referrals in a tertiary care hospital. Int J Res Dermatol. 2017;3:251-3.
9. Fernandes MD, Glória Velho MD, Manuela Selores MD. Dermatology inpatient consultation in a Portuguese university hospital Iolanda Conde. Dermatol Online J. 2012;18(6):16.
10. Williams A, Bhatia A, Kanish B. Pattern of dermatological consultations in a tertiary care hospital in northern India. J Clin Diagn Res. 2016;10(12):7-10.
11. Bauer J, Maroon M. Dermatology inpatient consultations: A retrospective study. J Am Acad Dermatol. 2010;62(3):518-9.

Cite this article as: Sharma RL, Sharma R, Zaman FA. Analysis of cases of dermatological referrals and their systemic correlation in a tertiary care hospital in Gangtok: a prospective study. Int J Res Dermatol 2018;4:570-3.