



CODEN [USA]: IAJ PBB

ISSN: 2349-7750

**INDO AMERICAN JOURNAL OF
PHARMACEUTICAL SCIENCES**<http://doi.org/10.5281/zenodo.1462005>Available online at: <http://www.iajps.com>**A Case Study****A CASE REPORT ON TINEA CAPITIS; KERION CELSI
COMPLICATION****Akbar Sharooque.V¹, Aleena Prakash¹, Elizabeth Wilson Baby¹, Elza Mathew¹
S. Hemlalatha² and T. Sivakumar³**¹PharmD Interns, Department of Pharmacy Practice, Nandha College of Pharmacy,
Erode, Tamilnadu.²Asst Professor, Department of Pharmacy Practice, Nandha College of Pharmacy,
Erode, Tamilnadu³Principal, Nandha College of Pharmacy, Erode, Tamilnadu**Abstract:**

Tinea capitis is a very frequent dermatophytosis of childhood. Kerion is one of its complicated forms, which occurs as an inflammation and is T-cell mediated. It signs as multiple lesions in affected area. Thick crusting with matting of hairs will be seen. Here we present a 3 ½ year old boy who is reported with conditions of pustules over head for past 2 weeks which is gradually spreading. Also it is accompanied by fever since 3 days. The child was treated with Griseofulvin and treated completely.

Keywords: *Mycosporum, Trichophyton, Kerion, Dermatophyte****Corresponding Author:**

Akbar Sharooque.V,
PharmD Interns,
Department of Pharmacy Practice,
Nandha College of Pharmacy,
Erode, Tamilnadu.
Phone no: 7994954838
Email: sharooqveleri@gmail.com

QR code



Please cite this article in press Akbar Sharooque.V et al., *A Case Report on Tinea Capitis; Kerion Celsi Complication.*, Indo Am. J. P. Sci, 2018; 05(10).

INTRODUCTION:

Tinea Capitis is a fungal infection usually caused by anthropophilic dermatophytes that may exist in a quite suppressed state for weeks. Once a high degree of hypersensitivity develops it may become inflammatory and develop into kerion. [1] *Mycosporum* and *Trichophyton* are the main causative organism. [2] Tinea capitis is predominantly present in preadolescent children, typically age of onset between 5 and 10 years. [3] Main etiological reasons behind this include poor personal hygiene, overcrowding, low socio-economic level, climate, genetic constitution etc. [2] The clinical manifestations depends upon the type of hair invasion, the level of host resistance and degree of host inflammatory response. [4] It is mostly affected in boys rather than in girls. It is always necessary to have an early diagnosis to prevent its transmission between the small children especially the sibling. Also it can avoid possible scarring and permanent hair loss. [5] The diagnostic procedures mainly include microscopic observation of fungal elements with the spectrum of infected skin, the hair obtained from scalp scrapings or the hair plucked from the affected site. In the treatment, Anti-fungal medicines can be used, but the incision and drainage should be avoided. [2]

CASE REPORT:

A 4 year old male child was presented with conditions of pustules over head for past one week which gradually spread to become a wound. It was accompanied with fever intermittent type since 3 days. The child also had history of discharge from wound, which was not foul smelling, cough and cold since 2 days. The patient did not have any previous complaints of the same type. In the family history her mother has the complaints of multiple scaly, itching lesions on both upper limbs. General physical examination on the first day admission revealed an alert boy, looking well with no signs of anemia, icterus, cyanosis, respiratory distress or generalized lymphadenopathy. The blood pressure was 90/60 mmHg, pulse rate 90 times per minute, respiratory rate 26 times per minute and body temperature was 97 ° F. On local examination dermatological state on region scalp was found with a linear wound of length 6x1 cm size over vertex.

Laboratory examination showed WBC count $12.3 \times 10^9/L$, Leucocyte count 22.7 %, monocyte count 9.1%, granulocyte count 68.2%. Platelet count is $386 \times 10^9/L$. Erythrocyte sedimentation rate was 36mm/hr. Urinary examinations were within normal limit. In microbiological examination gram stain found plenty of pus cells in which gram positive cocci in cluster and

pairs. Skin fungal scraping test and AFB found negative. Patient was started with Inj. Amoxicillin clavulanate 200 mg for two days, and then it was stopped. Inj. Ampicillin / cloxacillin 500mg for the next 9 days. Syrup Allercet 2.5ml was prescribed that patient is having the symptoms of fever, cough and cold. Patient was also given Griseofulvin 125 mg, Scalp shampoo and Candid Lotio. After 10 days treatment pus discharge decreased, no fever, no cough and cold, and the wound healed. The therapy was continued. At the 10th day of therapy the antibiotics were stopped and the patient was discharged.

DISCUSSION:

Through this case report we understood that the etiologic agent for the tinea capitis and kerion are *Mycosporum* and *Trichophyton*. [6] Tinea Capitis is a superficial skin infection affecting the skin with high intensity of attacking hair shafts and follicles. It can also be called as Ringworm of scalp and Tinea Torsurans. It affects the superficial layers of the epidermis, mainly the stratum corneum and the keratin rich appendages. There it ultimately proliferates and multiply. Hence it results in different degrees of hair loss. [3] Here in the case the child had a recent hair cut and the infection has occurred due to the repetitive use of the same blade. [4] Kerion has got the chances to be mistaken with bacterial infections such as impetigo, folliculitis and abscesses Both are displaying almost similar clinical features. Here in our case the treatment was started with regular antibiotics such as Inj Amoxycloxacillin 200mg and Inj Ampiclox 500mg. Once it was confirmed it is Tinea capitis, then only Griseofulvin 30mg tablet was started. So misdiagnosing and improper treatment has led to the severity. [7]

Griseofulvin is the treatment of choice for infections caused by *Mycosporum* species. [7] Skin fungal scraping has been done for the patient but was found to be negative. However the results is negative, it could be attributed to laboratory error or personnel error. Hence the sample was send for gram stain. Plenty of pus cells and gram positive Cocci in cluster of pairs were seen. Elghblawi et al reports Itraconazole and Terbinafine can do the treatment for kerion Celsi. But in this case Griseofulvin has been used as the first choice. [8] In addition Scalp shampoo and candid lotio has helped in removing the rust.

CONCLUSION:

Dermatophyte infections are commonly observed in the pediatric population with differences in the epidemiological features witnessed, clinical symptoms perceived and the causative strain isolated. [3] What is important is an appropriate treatment. It can lead to

early recovery and avoid un-necessary biopsies and surgical interventions. Early detection and diagnosis can prevent Tinea capitis and its complicated kerion from spreading in the community. [2]

ACKNOWLEDGEMENT:

We sincerely thank our teaching staff members and friends for providing their heartfelt support.

REFERENCES:

1. Sonia Fernandes, Cristina Amaro, MariadaLuzMartins, Joao Inacio , Teresa Araujo , Raquel Vieira, Maria Jose Silvestre , Jorge Cardoso. Kerion caused by *Microsporum audouinii* in a child. *Medical Mycology Case Reports*; 2013; 52–54.
2. Dyah Ratri Anggarini, Trisniartami Setyaningrum . Tinea Capitis Kerion Type: A Case Report. *Periodical of Dermatology and Venereology*; 2014; 26(3):234-239.
3. Moatasem Mohammed Modhish 1, Manal Muneer Ibraheem Al-Assiri , Ahmed Mohammed Yahya Althui. A study of Tinea Capitis in Children. *The Egyptian Journal of Hospital Medicine*; October 2017; 69 (7): 2852-2855.
4. Prathima Munichandrappa, P. Mamatha, G. Balasubrahmanyam, R. Priyanka Reddy and Hanumanthayya Keloji. A Case Report: Kerion celsi . *RGUHS J Med Sciences*; October 2017; 7(4):156-157.
5. Grover C, Arora P, Manchanda V. Tinea capitis in the pediatric population: A study from north India. *Indian J Dermatol Venereol Leprol*; 2010; 76:527-32.
6. RUIFENG ZHANG, YUPING RAN, YALING DAI , HAO ZHANG & YAO LU. A case of kerion celsi caused by *Microsporum gypseum* in a boy following dermatoplasty for a scalp wound from a road accident. *Medical Mycology*; January 2011; 49: 90–93
7. Balasubramanian S, Vindhya K, Dhanalakshmi K, Ramkumar R. Kerion in a neonate. *Indian J Paediatr Dermatol*; 2017; 18:333-334.
8. Elghblawi E. Tinea capitis in children: A report of four cases trichoscopic with trichoscopic features. *Indian J Paediatr Dermatol* 2018; 19:51-6.