



Iowa Research Online
The University of Iowa's Institutional Repository

Department of Dermatology Publications

12-6-2016

Tinea corporis in a wrestling team cheerleader

C McClanahan
University of Iowa

K Wanat
University of Iowa

DOI: <https://doi.org/10.1016/j.ijwd.2016.10.001>

Copyright © 2016 The Authors

Creative Commons License



This work is licensed under a [Creative Commons Attribution-Noncommercial-No Derivative Works 4.0 License](https://creativecommons.org/licenses/by-nc-nd/4.0/).

Int J Womens Dermatol. 2016 Dec 6; 2(4):143-144. <https://doi.org/10.1016/j.ijwd.2016.10.001>

Hosted by Iowa Research Online. For more information please contact: lib-ir@uiowa.edu.



Case Report

Tinea corporis in a wrestling team cheerleader[☆]C. McClanahan, MD, K. Wanat, MD^{*}

Department of Dermatology, University of Iowa



ARTICLE INFO

Article history:

Received 3 August 2016

Received in revised form 14 October 2016

Accepted 17 October 2016

Keywords:

tinea

tinea gladiatorum

cheerleader

athlete

skin infection

Published by Elsevier Inc. on behalf of Women's Dermatologic Society. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

Introduction

Tinea gladiatorum is well described among wrestlers but not wrestling team cheerleaders. We describe the case of a teenage wrestling team cheerleader who developed tinea corporis shortly after the start of the cheerleading season.

Case

A healthy teenage girl presented to our office with a red, itchy rash on her knee and lower leg that started shortly after the start of cheerleading practice for the wrestling team. The patient reported practicing and performing on wrestling mats as a cheerleader. Her primary care physician prescribed triamcinolone, which exacerbated the eruption. On examination, the patient had annular, erythematous, and scaly plaques with central clearing on the left lower leg and right anterior thigh (Fig. 1). A potassium hydroxide preparation tested positive for hyphae. A fungal culture was not performed because the diagnosis was made with a potassium hydroxide preparation. The patient was prescribed terbinafine 1% cream and a 2-week

course of oral terbinafine 250 mg daily, resulting in the clearance of the tinea corporis.

Discussion

Tinea, bacterial, and herpetic infections are the leading causes of skin infections in athletes. Bacterial infections represent the leading cause of skin infections in athletes and account for approximately 60% of infections in one study of high school athletes (Ashack et al., 2016). Tinea is the second leading cause and represents approximately 30% of skin infections, and herpes accounts for approximately 5% of infections in student athletes (Ashack et al., 2016). Other infectious etiologies, such as scabies, head lice, and molluscum contagiosum, make up the remaining 5% of infectious skin diseases (Ashack et al., 2016). As expected, athletes who are involved in in contact sports, such as wrestling and football, have higher rates of skin infections than those in non-contact sports, such as basketball, volleyball, and soccer (Ashack et al., 2016).

Tinea gladiatorum is a well-recognized infection among wrestlers. One study found that approximately 85% of high school wrestling teams had at least one wrestler with tinea gladiatorum (Kohl et al., 2002). The main causative organism for tinea gladiatorum is trichophyton tonsurans and the primary mode of transmission is person-to-person contact (Kohl et al., 2002) although transmission can also occur through contact with wrestling mats (Aghamirian and Ghiasian, 2011). Wrestling team cheerleaders, who regularly practice on wrestling mats, are therefore at risk to contract tinea

[☆] Neither author has any relevant conflicts of interest, including financial interests, activities, relationships, and affiliations.

^{*} Corresponding author.

E-mail address: Karolyn-wanat@uiowa.edu (K. Wanat).



Fig. 1. Annular scaly plaque on the left leg characteristic of tinea corporis.

corporis. However, the actual incidence of tinea corporis among cheerleaders is not known. We suspect that our patient contracted tinea corporis through contact with a wrestling mat that had been used by the wrestling team.

Rates of overall skin infections have not been established for cheerleaders. However, there are 400,000 high school students who are involved in cheerleading nationally (Currie et al., 2016); therefore,

this population is important to include when evaluating infections in student athletes. Given the contact that cheerleaders have with mats and the close contact that certain cheerleading routines require, contraction of tinea, bacterial infections, herpes, verruca, and molluscum should be considered in cheerleaders. In addition, frequent mat cleaning and personal hygiene practices are important to help prevent the spread of skin infections among all athletes who come in contact with mats (Pedersen et al., 2013), including gymnasts and cheerleaders in addition to wrestlers. Wrestlers are frequently counseled on the importance of showering after mat use and avoiding sharing gear or uniforms (Pedersen et al., 2013), but education for cheerleaders on prevention methods may not occur regularly. We recommended education for the cheerleaders in the squad of our patient and would recommend further education in cheerleading programs across the country to help prevent these types of infections.

References

- Aghamirian MR, Ghiasian SA. A clinico-epidemiological study on tinea gladiatorum in Iranian wrestlers and mat contamination by dermatophytes. *Mycoses* 2011; 54(3):248–53.
- Ashack KA, Burton KA, Johnson TR, Currie DW, Comstock RD, Dellavalle RP. Skin infections among US high school athletes: A national survey. *J Am Acad Dermatol* 2016;74(4):679–84.
- Currie DW, Fields SK, Patterson MJ, Comstock RD. Cheerleading injuries in United States high schools. *Pediatrics* 2016;137(1).
- Kohl TD, Giesen DP, Moyer Jr J, Lisney M. Tinea gladiatorum: Pennsylvania's experience. *Clin J Sport Med* 2002;12(3):165–71.
- Pedersen M, Doyle MR, Beste A, Diekema DJ, Zimmerman MB, Herwaldt LA. Survey of high school athletic programs in Iowa regarding infections and infection prevention policies and practices. *Iowa Orthop J* 2013;33:107–13.