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**Case Report**

# FAMILIAL CHROMHIDROSIS

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**ABSTRACT**
Chromhidrosis is a rare and benign condition that known producting coloured sweats from eccrine and apocrine sweat glands. However several cases releated to drugs and exogen-endogen materials are submitted in the literature; it is usually idiopathic. In this report we present, red-orange sweating case which affected all members of five person family has been determined such a case very rarely reported in literature. Causes, mechanisms and treatment of chromhidrosis affecting life quality of people is clarified in this case.

**Key words**: Chromhydrosis, benign

**ÖZET**
Kromhidroz ekrin ve apokrin ter bezlerinden renkli ter üretimiyle bilinen nadir ve benign bir hastalıktır. Bununla birlikte ilaçlar, endojen-ekzojen maddelere ilişkili olgular literatürde bildirilmiştir; genellikle idiopatiktir. Bu yazıda beş kişilik ailenin tüm bireylerini etkileyen ve kırmızı-portakal rengi terleme gösteren literatürdeki nadir bir olguyu sunuyoruz. İnsanların yaşam kalitesini etkileyen kromhidrozun nedenleri, mekanizmaları ve tedavileri bu olguda tartışılmaktadır.

**Anahtar kelimeler**: Kromhidroz, benign

## INTRODUCTION

Cromhidrosis was first described by Yonge in 1709.[1] It is a rare disease which affects both apocrine and eccrine sweat glands and resulting with different colours of sweat such as yellow, green, blue, blue black and brown.[2] Familial chromhidrosis has been reported in the literature in two cases of brothers aged 12 and 9 years.[3] We report of five person family with red-orange sweating diagnosed as chromhidrosis.

## CASE REPORT

A five person family (35 year-old father, 33 year-old mother and three children aged 11, 9 and 6 years) admitted to our clinics with complaint of red-orange coloured

staining dress. They remarked that red-orange coloured staining of the hands and feet appeared in the morning. Their medical history was unremarkable and they were not on any topical or oral medications. They had no recent history of intake of any colored foods. They stated that they have had such complaints once before.

A complete blood count, urinalysis and homogentisic levels were within normal limits. Liver function tests were normal. Skin bacterial and fungal cultures were negative.

On physical examination; each of five person had red-orange coloring was observed different part of their bodies and dresses (Figure 1), (Figure 2).

Any treatment was recommended. Patients were followed up. No relaps was observed in 8 month follow up.

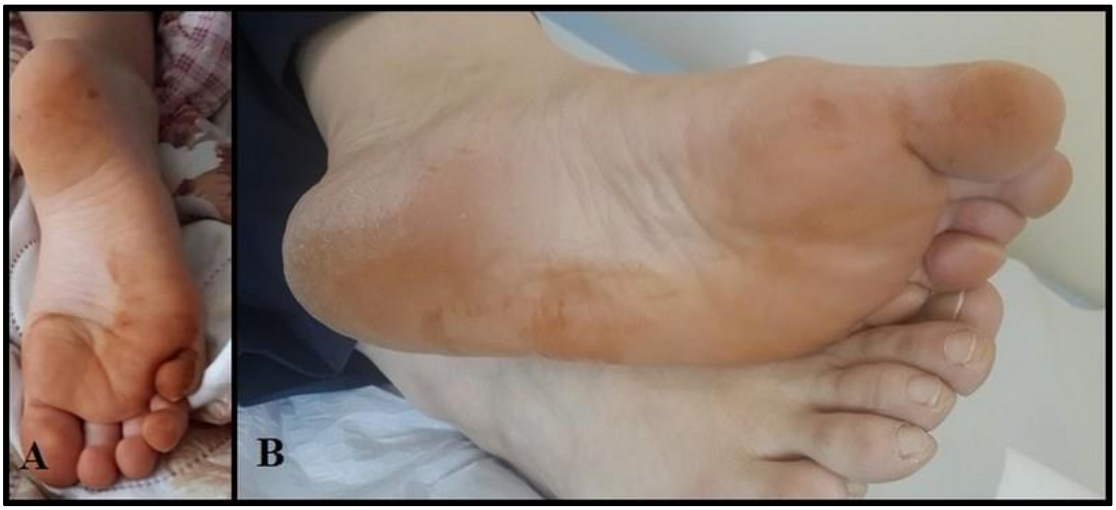


**Figure 1**. Red-orange pigmentation in the plantar region of the child and mother

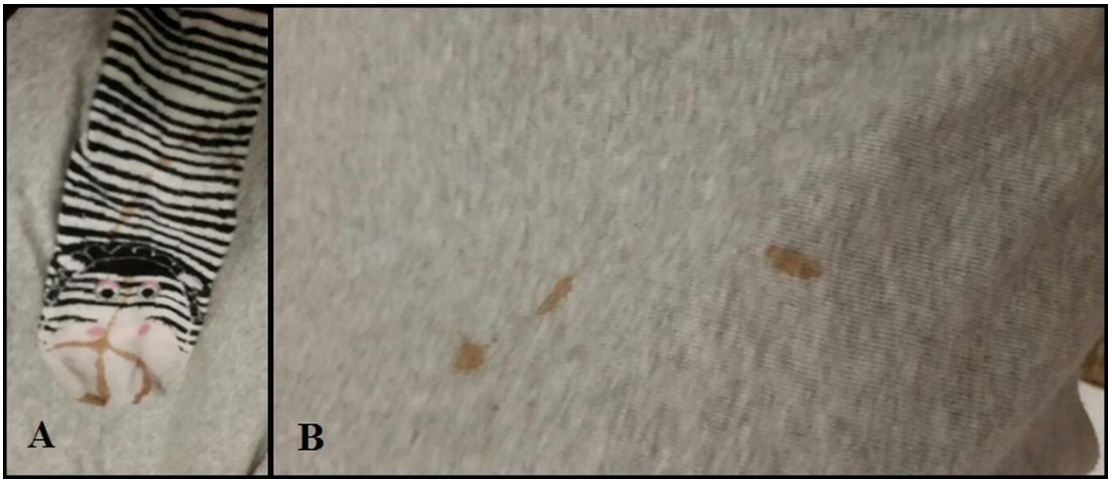


**Figure 2**. Red-Orange coloring on the child's sock and mother's athlete

## DISCUSSION

Chromhidrosis is defined by Yonge of Plymouth in 1709.[1] It is referred that there are three types of chromhidrosis: i) apocrine chromhidrosis, ii) pseudo-eccrine chromhidrosis, iii) eccrine chromhidrosis. There have been one familial case report in the literature.[3]

Chromhidrosis, which is characterized producting coloured sweat by ecrine and apoccrine sweat glands is very rare condition. Apocrine chromhidrosis is a disease which affects apocrine glands localize only on the face, extremities, and breast areolae. Contrarily, eccrine chromhidrosis is usually generalized on the skin.[4] Eccrine chromhidrosis occurs releasing chrome or drug which tends to be solved by water from eccrine glands. Furthermore; it is also result in chromogenic bacteria an fungal elements or extrinsic chemicals and nourishments on the skin.[3,5] Althought no relation between chromhidrosis and systemic disease have been documented, it is reported that there is an association between chromhidrosis and hyperbilirubinemia in some case.[1,5,6] In pseudoeccrine chromhidrosis, sweat is actually colorless, discoloration is developing with substances that contact and cause pigmentation from the outside to the surface of the skin. A large number of chromogenic, porphyrin-producing bacteria and fungi like; Malassezia furfur, Bacillus spp., Corynebacterium, Piedra, Pseudomonas were reportedly caused to pseudoeccrine chromhidrosis.[7] Our case's skin bacterial and fungal cultures were negative. Therefore pseudoecrin chromohydrosis was not considered. Eccrin chromohydrosis was considered because there was color change in hand and food in our patient.

The differential diagnosis consists of hyperbilirubinemia and alcaptonuria. Routine hemogram, liver and renal profiles, urinalysis and electrolites should be estimated in case of doubt. Moreover, histopathologic examination and spectrophotometric analysis can be performed.[3]

Treatment alternatives depends on type and reason of chromhidrosis. Antiperspiration cream which contains aluminum chlorid or capsaicin and botulinium toxin type A (BTX-A) injection can be used for therapy. Besides, it must be withdrawed drugs and foods related to disease.[3]

## CONCLUSION

It should be investigated on underlying causes and planned therapy according to the case.

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