

Case Report

Acute-Onset Plica Polonica following shampoo application: a case report

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ABSTRACT

Background & Objectives: Plica Polonica or Polish plait is a rare condition characterized by tangling and matting of hair that can lead to secondary infections. It has been reported globally with various etiologies including psychiatric illness and pathophysiology involves longitudinal splitting of hair often leading to complications. This study aimed analyze an unusual case of acute-onset Plica Polonica following shampoo application, highlighting the importance of recognizing non-psychiatric triggers.

Presentation of Case: A 25-year-old female presented with sudden hair matting within

minutes of shampoo application, exhibiting characteristic "bird's nest" appearance without evidence of infection or infestation. The patient had no history of psychiatric illness or other comorbidities.

Discussion: While Plica Polonica is commonly associated with psychiatric conditions and self-neglect, this case demonstrates an acute presentation triggered by shampoo use. The pathophysiology may involve alterations in hair shaft bonds leading to matting.

Conclusion: This case highlights the importance of considering external triggers in Plica Polonica, beyond the traditional associations with psychiatric conditions and self-neglect. Early recognition and appropriate management are crucial for preventing complications.

Keywords: Plica Polonica, hair matting, shampoo-induced, psychiatric condition

INTRODUCTION

Plica Polonica or Polish plait is a rare condition characterized by tangling and matting of hair often leading to infestation of head lice or other secondary infections of

scalp. In the past, it was associated with Polish communities, but it has been reported in a number of settings, including the spread of sociopolitical changes across Europe [1]. Though various etiologies are suggested for its occurrence, mainly chronic stress and debilitating diseases resulting in loss of physical activity and thus lack in self-care seems to be frequently associated with it. Various articles have described etiologies like psychiatric illness, shampoo use, scalp infection or infestation among many [2, 3].

CASE REPORT

A 25-year-old married female visited our Dermatology outpatient department with chief complains of hardening, twisting and entangling of hair three minutes after application of shampoo. It was associated with mild itching. She had no history of similar episode in the past. Family history was negative. She did not have any other associated comorbidities. She had negative history of any psychiatry illness or chronic stress. Her personal history was not significant. She had negative history of any drug intake recently.



Figure 1: Side View

On examination, matted and tangled hair was present and there was irreversible bending of whole shaft of hair. There was typical “birds’ nest” appearance and hair texture was coarse [Figure 1]. Nits were absent and there was no



Figure 1: Back View

lymphadenopathy. There was no secondary infection. Based on history and examination, the diagnosis of plica polonica was made. She was given Ketoconazole lotion and antihistamines for treatment. She was lost to follow up.

DISCUSSION

It is a rare condition with exact mechanism unknown. There may be longitudinal splitting or gluing of hair secondary to infections. Generalized neglect seems to be a common cause of infections and infestations by lice, especially in psychiatry disorders [4]. Breakage in disulfide bonds leads to matting and entangling of hair [5].

Treatment mainly depends on etiology. Lice infestations need to be treated with Permethrin. Secondary bacterial infections should be treated with topical as well as oral antibiotics. Trimming of hair is advisable for long hair. Though plica polonica has historical origins, it is still a pertinent clinical concern, especially in the psychiatric settings where hair may not be given proper attention. It can be linked to disorders such as schizophrenia and anxiety [6]. Thus, proper care and treatment of underlying psychiatric condition is necessary which can be done preferably by medicine or counselling. In cases where this

condition arises from external factors such as use harsh hair care products or chemotherapeutic drugs, lifestyle modification is beneficial thereby advising patients to do gentle hair care practice and avoid using harsh chemicals on their hair [7]. This case is reported because of its rarity, and its acute presentation.

CONCLUSION

Unlike the usual cases linked to self-neglect or mental illness, this case demonstrates an uncommon presentation of Plica Polonica with an acute onset after shampoo use. Even in people who are psychologically healthy, this condition can be triggered by external factors like hair care products, though this is uncommon. Proper hair care advice and early detection of a variety of presentations are essential for management and prevention. This case adds to the limited literature on chemically-induced Plica Polonica and emphasizes the importance of considering non-psychiatric etiologies in such presentations.

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