

Plica Polonica Secondary to Chemotherapeutic Drugs Combination

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Citation: Pangti R, Yadav A, Mendiratta V. Plica Polonica Secondary to Chemotherapeutic Drugs Combination. *Dermatol Pract Concept.* 2023;13(1):e2023061. DOI: <https://doi.org/10.5826/dpc.1301a61>

Accepted: July 6, 2022; **Published:** January 2023

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Funding: None.

Competing Interests: None.

Authorship: All authors have contributed significantly to this publication.

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Case Presentation

A 36-year-old female presented with sudden onset of matting of hair for the past three days along with non-cicatricial loss of hair from the frontal scalp and vertex (Figure 1, A and B). The patient had been on chemotherapy (cyclophosphamide and adriamycin) for the past one month for stage 4 breast cancer. The patient had proper hair care habits. There was no evidence of pediculosis capitis, psychiatric illness, or history of new shampoo use. A diagnosis of plica polonica was made based on history and examination.

Teaching Point

Plica polonica is characterized by an irreversible twisting, matting, and entanglement of hair. The exact causation and

patho-mechanism of this condition are not known. Multiple factors like unkept hair, frequent combing, use of a new or harsh shampoo, psychiatric condition, and parasitic infestation have been implicated [1,2]. Drug-induced matting of hair has been reported secondary to docetaxel, methotrexate, azathioprine, combination of paclitaxel, carboplatin, and combination of cisplatin, cyclophosphamide, doxorubicin [1,2]. Chemotherapeutic drugs disrupt the anagen phase of the hair cycle causing weakening of the partially keratinized proximal portion of the hair shaft, breakage, and shedding of anagen hair (anagen effluvium) [1,2]. The drugs can also cause cuticular damage to the proximal hair shaft predisposing to hair matting [2]. In our patient, cytotoxic agents (cyclophosphamide and adriamycin) lead to the matting of hair. The only suitable treatment for this condition is cutting matted hair or shaving [1,2].

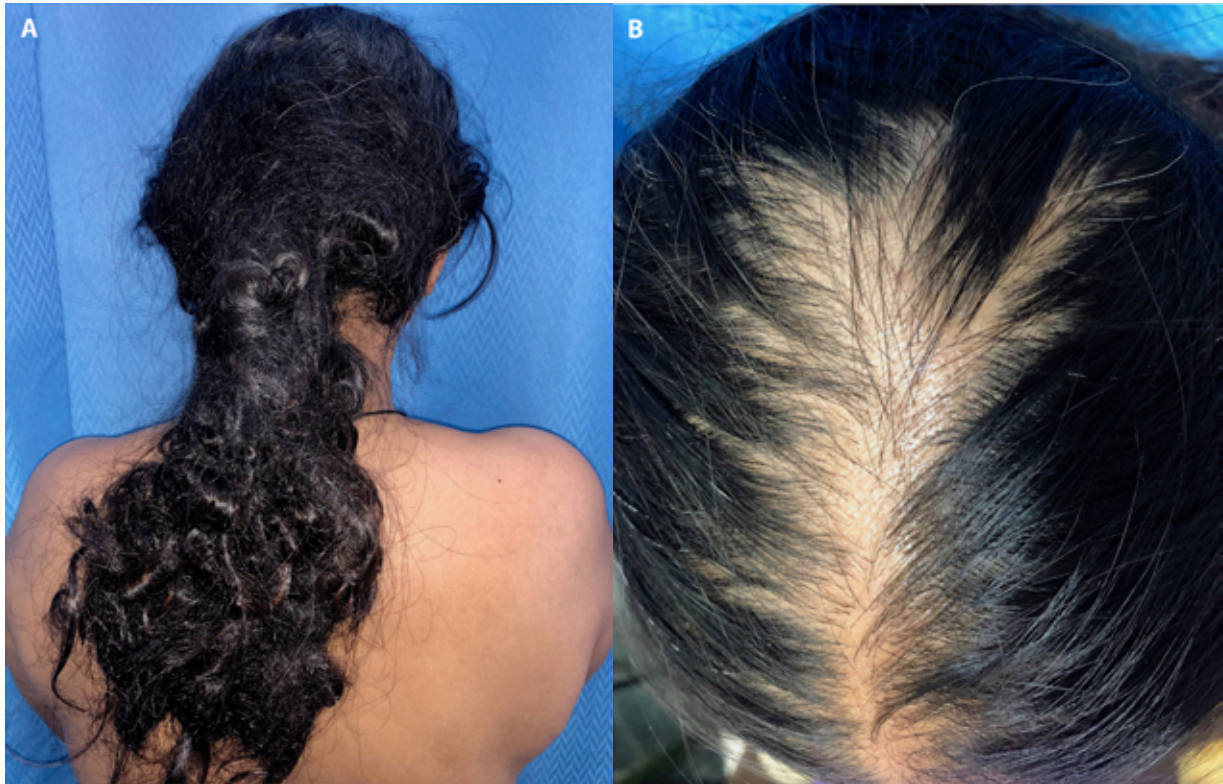


Figure 1. (A) Matting of hair as seen from back. (B) Anagen effluvium over vertex of scalp.

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