PLICA NEUROPATHICA (POLONICA) IN SCHIZOPHRENIA - A CASE REPORT AND REVIEW OF LITERATURE

P.N. SURESH KUMAR, BEENA ANTONY, ASHISH CHAKRAVARTHY & A.M. KUNHI KOYAMU

ABSTRACT

Plica neuropathica also known as plica polonica is an uncommon condition in which the hairs of the scalp in a localised area is compacted into irregularly twisted, irreversibly entangled plaits. A review of literature shows several predisposing factors figuring in plica neuropathica like kinky hair, use of shampoos, febrile illness and psychological disturbances. The authors describe a case of plica neuropathica in a paranoid schizophrenic patient who developed irreversible tangling of scalp hair.

Key words: Plica neuropathica, plica polonica, schizophrenia

Plica neuropathica also known as plica polonica is an uncommon condition in which the hairs of the scalp in a localised area are compacted into irregularly twisted, irreversibly entangled plaits. This term was coined by Le Page in 1884, when he described a 17-year-old girl with a sudden onset of tangled scalp hair. Le Page attributed this strange occurrence to "nerve force" while the parents of the child considered it a "visitation from god". A few cases have since been reported (Dubreuilh, 1902; De Amis, 1923; Ohman and Dumesnil, 1923; Graham, 1952; Mozer, 1995 and Friedli et al., 2000). In 1969, Simpson et al reported a case of plica neuropathica in a psychiatric patient with anxiety and depression. According to him predisposing factors figuring in plica-neuropathica were kinky hair, use of shampoos, febrile illness and psychological disturbance. In 1985, Khare reported plica neuropathica in a 20-year-old female, with continuous mental illness. She developed plica neuropathica after having undergone such a stress for six months. Since matting of hair could not be produced by rubbing together of uninvolved hair, the mechanical effect is not likely cause in this case.

On referring the latest textbooks of dermatology, it was found that plica polonica is an older term of plica neuropathica for irreversibly entangled and matted hair. Plica neuropathica was a common condition of the scalp hair in Poland during the 19th century. It was characterized by a filthy, malodorous, inflamed scalp usually heavily infested by lice. The hair was matted into a sticky, moist mass probably due to deficient care of the hair. The Polish custom of wearing tight fur caps and the superstitious belief that a lousy scalp was healthy no doubt contributed to the frequency of plica polonica in Poland (Agnes, 1952). As described in reported cases, plica neuropathica is characterized by a sudden onset and a scalp healthy in appearance and free of offensive colour and parasites. Hysteria was described as a prominent feature in five of seven women previously reported with plica neuropathica (Simpson, 1969).

The scalp hair has been a prime target of superstitious beliefs. Plaited hair has been regarded as a safety valve in severe illnesses and, if a patient could "raise" a plica, he/she would supposedly recover from his disease. A plica was produced by tar, pitch, or wax by those people.
with faith in the salutary influence of a plica. Despite the role of psychological disturbance in this condition as a risk factor there is not even a single case report of plica polonica in psychiatric journals. While reviewing the Indian literature on this subject, few cases could be searched out published in various dermatology journals (Hajini et al., 1982; Mani and Sahni, 1983; Khare, 1985; Sharma et al., 1987 and Pavithran, 1990). Herein, a 30-year-old female patient who developed plica neuropathica after one year of continuous mental illness is described.

**CASE REPORT**

Mrs. A was a 30-year-old, married, Hindu female presented with two years history of continuous illness characterised by delusion of persecution, muttering to self, social withdrawal and preoccupied behavior. During the course of illness, around one year back, she developed sudden tangling of hair. After this, she has not opened the hair lock which was tied up earlier or not combed the hair. However, she was oiling and washing the hair regularly. Few weeks after the onset of tangling of hair, it was infested with lice, but there was no secondary scalp infection or malodour. Even with repeated probing, patient was refused answer the reason for this particular behaviour. Her parents revealed that she has been told to her parents that the hair can be cut only in a religious set up after getting her consent.

Her physical examination was within normal limits. Routine blood investigations and biochemical parameters did not reveal any abnormality. She was admitted in hospital for detailed evaluation and was diagnosed to have schizophrenia-undifferentiated type as per DSM-IV criteria. Because of her odd hair condition dermatology consultation was sought and was diagnosed as plica polonica. She was treated with a daily dose of risperidone 8 milligram per day and trihexyphenidyl 4 milligrams per day. During the period of inpatient stay of three weeks she showed significant improvement in the psychopathology except the odd hairstyle. Even after rigorous psychopharmacological treatment and psychosocial intervention, patient as well the family members refused to comply with the therapist's instruction to cut the hair. After three weeks patient was discharged at request of her parents and lost for follow up.

**DISCUSSION**

Plica neuropathica has been reported very rarely though it is seen more frequently. Along with other risk factors as mentioned in literature, psychological disturbance is a predisposing factor for this condition in some patients. In this case, the patient had a continuous illness of two years duration and her personal care was well maintained except the hair care. She developed plica neuropathica all of on a sudden, one year after the onset of illness. There were no predisposing factors like kinky hair, febrile illness, change in toilet soap or shampoo or mechanical effects like rubbing together of hair. Moreover, she had a delusion with religious colouring that removal of hair would be harmful to her as well as family members and hence wanted to preserve her matted hair. Hence it was inferred that the predisposing and perpetuating factors for plica polonica in this patient was her mental illness.

The authors would be interested to hear similar case reports from other clinicians.

**REFERENCES**

Agnes, S. (1952) The Hair and Scalp, ed 4, London: Edward Arnold and Company, 244.

De Amis (1923) Cited by Stelwagon and Gaskell: Diseases of the Skin, 9th edition, Philadelphia: Saunders Company, 1018-1020.

Dubreuilh (1923) Cited by Jackson, G.T. and Mc Murthy, C.W.: A Treatise on Diseases of the Hair, Philadelphia, Lea & Febiger Publishers, 186.

Freidli, A., Peerriard-Wolfensberger, J. & Harms, M. (2000) Plica polonica in the 21st century. Hautarzt, 51 (3), 201-202.
PLICA NEUROPATHICA IN SCHIZOPHRENIA: A CASE REPORT

Graham, P.V. (1953) Tangled Hair: Bizzare Occurrence After Use of Detergent Shampoo. Archives of Dermatology, 67, 515.

Hajini, G.H., Ahamed, Q.M. & Ahamed, M. (1982) Plica neuropathica (case report). Indian Journal of Dermatology, Venereology, and Leprology, 48, 221-222.

Khare, A.K. (1985) Plica neuropathica. Indian Journal of Dermatology, Venereology, and Leprology, 51, 178-179.

Le Page, J.F. (1984) On neuropathica Plica. British Medical Journal, 1 (160).

Mani, M.S. and Sahni, P.S. (1983) Matting of hair due to “halo egg” shampoo. Indian Journal of Dermatology, Venereology, and Leprology, 49, 138-140.

Mozzer, I. (1995) Plica polonica. Orv Hetil. 136 (29), 1559-61.

Odom, R.B., James, W.D. and Berger, T.G. (eds.) (2000) Plica-neuropathica in Andrew’s diseases of skin, 9th edition. W.B. Saunders Company, Philadelphia, 961.

Ohmann, and Dumesnil (1923) Cited by Jackson, G.T. and McMurthy, C.W. A Treatise on Diseases of the Hair. Philadelphia, Lea & Febiger, Publishers, 286.

Pavithran, K. (1990) Plica-neuropathica causing traction alopecia. Indian Journal of Dermatology, Venereology and Leprology, 56, 141-142.

Sharma, P.K., Saxena, A.K. and Jain, R.K. (1987) Matting of hair due to cationic detergent. Indian Journal of Dermatology, Venereology and Leprology, 53, 179-180.

Simpson, M.H. and Mullins, J.F. (1969) Plica-neuropathica. Archives of Dermatology, 100, 457-458.

P.N. SURESH KUMAR*, Senior Lecturer, M.D., D.P.M., D.N.B.(Psych), M.N.A M.S, BEENA ANTONY, Postgraduate Student in Psychiatry (MD), ASHISH CHAKRAVARTHY, M.B.B.S. Resident Intern & A.M. KUNHI KOYAMU, M.D., D.P.M. Professor and Head, Department of Psychiatry, Medical College, Kozhikode (* Malaparamba Housing Colony, M-26-A-62, Kozhikode-730009)

* Correspondence