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A CASE REPORT- TEMPORO-PARIETAL GLIOSIS IN *SHIROGHATA* (HEAD TRAUMA)

***[1]Dr. Piyush Verma and [2]Dr. Dhirendra Pratap Verma**

[1]MD(ay)-Rachana Sharir; Assistant Professor in Department of Rachana Sharir at KVS Institute of Ayurvedic Medical Sciences & Research Center, Sadat-Ghazipur (U.P).
[2]BAMS, Medical Practitioner at Anand Clinic, Ghazipur Ghat, Ghazipur (U.P).

***Corresponding Author: Dr. Piyush Verma**
MD(ay)-Rachana Sharir; Assistant Professor in Department of Rachana Sharir at KVS Institute of Ayurvedic Medical Sciences & Research Center, Sadat-Ghazipur (U.P).

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ABSTRACT

Shiroghata (Head Trauma) occurs due to *agantuja* reasons that is accidental or attempted injury to head by external influence. Acute head trauma is mostly fatal and results in various adverse outcomes including death. Sub acute or low threshold head trauma or sometimes acute trauma with survival leads to gliosis which often presents as recurrent headache at the site of previous trauma.

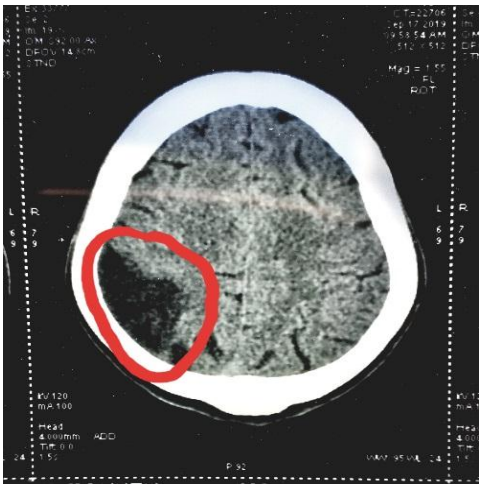
KEYWORDS: *Shiroghata*, headache, gliosis.

CASE

A 32 years old male presented in OPD with chief complain of recurrent chronic headache in right side of head. The pain was non radiating and continuous in nature accompanied with heaviness in head. Previous episodes of pain needed analgesics after which they subsided but reoccurs as the patient indulges itself in moderate work stress. The pain also got aggravated after household quarrels and psochological stress. It was associated with anxiety, failure to think and frequent anger. Patient was not having any history of diabetes, hypertension, fever or any other chronic disease. There was no history of any drug intake or any family history but patient was having history of head trauma to the right side of the head approx. 1.5 to 2 months ago. At that time patient tooks some analgesic and anti-inflammatory medications locally for the pain due to trauma which was symptomatically improved.

On examination patient was not having any external sign of trauma on head, BP-132/90mmhg, HR-80/min, RR-20, eye sight was normal, no pallor, no icterus, no palpable lymph nodes, patient was neurologically stable.

Patient was evaluated and non contrast CT head was done which showed moderate sized hypodensity involving right temporo-parietal region with effaced sulci with no significant enhancement suggestive of gliosis/ chronic infarct. As the patient was not having any history of neurological deficiency at the time of head injury, the lesion in CT film was most likely gliosis causing recurrent headache.



DISCUSSION

Shira (head) has been considered in the one of three most vital part of body that is *trimarmas*. It is the seat of highest function and life. All vital parts functions are controlled by it. There are eleven types of *shirorogas* in Ayurveda having different etiological factors and clinical features, but the common feature is the discomfort or pain in head whose nature is different in different types.

Headache is the prominent symptom in most of the head diseases. It is often disabling complain with serious affect on daily routines. It may be sometimes a primary disease symptom due to any organic abnormality in CNS or functional defect, it may also present due to a secondary disease as a complication. The CNS causes of headache may be insidious or acute or may be chronic.

The chronic causes of headache may arise from any chronic infection, neoplastic growth, functional or old head trauma. Very commonly chronic recurrent headaches are also associated with psychological conditions.

The cranial cavity in head has brain inside it which makes central nervous system with spinal cord. Nervous tissue consists of neuron and neuroglial cells. A neuron is a functional and structural unit of nervous system where as neuroglial cells froms the supporting framework of the central nervous system. In peripheral nervous system the neuroglia are replaced by Schwann's cells.

There are various types of neuroglial cells in CNS-

1. Astrocytes- They are concerned with the nutrition of the nervous tissue and are star shaped. These form blood brain barrier. These are of two types-

a) Protoplasmic
b) Fibrous

They are absent in pineal gland and posterior pituitary gland.

2. Oligodendrocytes- They are counterparts of the schwann cells. Schwann cells myelinate the peripheral nerves. Oligodendrocytes mylinate tracts.
3. Microglia- They behave like macrophages of the CNS. They develop from mesoderm.
4. Ependymal cells- These are columnar cells lining the cavities of the CNS.

Neuroglial cells in PNS are-

1. Schwann's cells- They from myelin sheath in PNS.
2. Capsular cells (satellite cells)- They support and nourish ganglia.

Proliferation of glial cells is called gliosis. A CNS lesion heals by gliosis. Main glial cell involved in gliosis are astrocytes. A spontaneous gliosis is an indication of a degenerative change in the nervous tissue. Since glial cells are capable of dividing, they can from the CNS tumors. This gliosis causes recurrent headaches with feeling of heaviness in head. Sometimes epileptic seizures are also associated. In some cases relation of spontaneous gliosis has also been associated with obesity. The complain of headache in gliosis may be triggered by certain factors as psychological or working stress.

After performing radiological investigations, if gliosis is suspected in individuals then proper history of previous head injury must be taken to rule out spontaneous causes of gliosis. Through physical examinations appropriate laboratory investigations must be done to rule out and other conditions of headache. Patient follow up is necessary to check any other development in lesion.

Conflict of interest- nil.

CONCLUSION

Recurrent episodic headache is very common complain in OPD settings. If patient is giving history of head injury (*shiroghata*) in past and there is correlation of site of headache with injury site then he should also be evaluated for gliosis along with other conditions of headache.

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