

Cluster Headache Following Head Injury: A Case Report and Review of the Literature

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SYNOPSIS

A relation between head trauma and cluster headache is frequently described in the literature. The percentage of cluster patients with a history of head injury is approximately 16.5 when several large studies are reviewed. The present paper reports another case where there is close proximity between head injury and the onset of cluster headache. A review of the literature attempts to document the supposition that there is indeed a causal or precipitous role for head injury in cluster cephalgia pathogenesis.

Key Words: cluster headache, head trauma, review

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CASE REPORT

The patient is a 31-year-old nonhypertensive, nondiabetic, euthyroid, nonsmoking, nondrinking female, not on birth control pills and with regular menstrual cycles. The patient works as a machine operator without toxic exposure. There was no prior history of headache of any kind before suffering minor head trauma with no loss of consciousness in an auto accident in December 1990. Six days later, she developed headaches which were consistent and repetitive up until our consultation in May 1991. The headaches were described as a spike going through her right eye. The attacks were all right-sided, periorbital, and 30-45 minutes in duration. These headaches occurred at the same time each afternoon and were accompanied by redness and tearing of the eye. The headaches were severe to the extent that she had suicidal ideations and would bang her head as a behavioral response. No treatments were effective prior to our consultation except for divalproex sodium

which dulled the pain to a minimal degree. In addition, the patient was using eight acetaminophen and oxycodone tablets a day. Other previous medications all of which were ineffective included propranolol, methysergide, antihistamines, and naproxen sodium. Contrast CT scans of the head and orbits were negative. A full psychological assessment was conducted including a clinical interview, the Minnesota Multiphasic Personality Inventory-2 (MMPI-2), State-Trait Anxiety Inventory (STAI), and the Beck Depression Inventory (BDI). The psychological impression was situational anxiety as a result of her illness without significant underlying psycho-emotional pathology. A diagnosis of posttraumatic cluster headache was made.

The patient was admitted to our inpatient head pain unit, where intravenous dihydroergotamine was started according to the protocol reported by Raskin.¹ Narcotics and acetaminophen were discontinued. The patient was monitored closely for signs of withdrawal. A preventative program of lithium carbonate 300 mg every 8 hours and divalproex sodium 250 mg every 6 hours was instituted. Total relief occurred with the institution of intravenous dihydroergotamine. Prior to achieving the headache-free state, indomethacin 25 mg by rectal suppository had been effective as an abortive. Normal laboratory results included a full blood count, liver chemistries, serum ammonia, and thyroid panel. Divalproex and lithium levels were therapeutic. Appropriate laboratory tests were followed sequentially, and no abnormalities were noted. Four months later, the patient was headache free with a divalproex level of 67 µg/ml and a lithium level of 0.9 mEq/L. The decision had been made to taper the patient's medication over six months. At follow-up contact in February 1992, the patient had been off medication for six months and had been headache free.

LITERATURE REVIEW

A number of reports of cluster headache patients describe the occurrence of some type of trauma precipitating the onset of cluster cephalgia (see

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