PARINAUD'S SYNDROME COMPLICATING MIGRAINE—A CASE REPORT

O.M. CHAY
H.I. TONG
P.K. WONG

SYNOPSIS

A case of Parinaud's Syndrome complicating migraine in a 26 year old Chinese woman is described. Parinaud's Syndrome is a most unusual complication of migraine and there has been no case report since 1932.

INTRODUCTION

Ophthalmoplegia complicating migraine is of low prevalence. Friedman et al (1962) were only able to collect 8 cases from a total of 5,000 migraine patients seen over a thirty year period. There were especially few observations of Parinaud's Syndrome (upward gaze paralysis). Snell (1885, 1893) noted upward and downward gaze paralysis; Spicer and Ormerod (1896) noted upward gaze paralysis and convergence paralysis; Vogelsang (1932) observed upward gaze paralysis and abolished convergence. Since then we have not come across any further reports.

CASE REPORT

A 26 year old Chinese housewife was admitted to our Unit in the Singapore General Hospital in October 1976 with the complaint of sudden onset of blurring of vision at about 2200 hours the previous night. This was associated with the appearance of bright spots of light especially on looking upwards. Shortly afterwards she experienced severe throbbing headache over both fronto-temporal regions. She felt giddy and was also unsteady on her feet.

For many years, this patient have been having intermittent attacks of throbbing headache, usually one-sided, affecting either fronto-temporal region. These were not associated with visual disturbances except for one episode 3 years ago. Then, she had sudden onset of bitemporal visual field loss with spontaneous recovery in approximately 5 minutes.

There was no history of hypertension or any other illnesses.

University Department of Medicine (I),
Singapore General Hospital,
Singapore 3.

O.M. Chay, MBBS,
House Physician,
H.I. Tong, MBBS, Am, FRACP,
Physician,
P.K. Wong, MBBS, AM, FRCP, FRCPE,
Associate Professor and Head.

On clinical examination the single significant finding was that of upward gaze paralysis. Other ocular movements were full. The pupils were equal and reactive to light. Visual acuity was 6/18 for both eyes. Fundoscopy was normal. There were no other cranial nerve involvement or neurological deficit. Systemic examination was normal.

Investigations, including routine blood counts, cerebrospinal fluid examination, electroencephalogram (EEG) and brain scan were all non-contributory.

Treatment was in the form of clonidine 0.025 mg three times daily, and ergotamine et caffeine compound for the severe attacks of headache. Improvement in upward gaze occurred by the fifth hospital day and at the end of one week there was no longer any paralysis of upward gaze, and visual acuity had improved to 6/6 and 6/9 on the right and left eyes respectively.

On outpatient follow-up two weeks and a month after her discharge she had remained well except for occasional mild headaches.

COMMENTS

In ophthalmoplegic migraine the attacks of headache are associated with transient, though in some instances permanent, pareses or paralysis of the ocular muscles. The development of ophthalmoplegia usually accompanies the migraine attack, but may either precede it, or follow it or, in rare instances, may not be associated with a migraine attack at all, in which case the term 'migraine dissociée' is applicable.

Since Notta contributed the first recognisable description of this migraine variant as early as 1854, the majority of papers devoted to the subject dealt with oculomotor nerve involvement, with rare reports on paralysis of the trochlear nerve (Coutonzis, 1897; Burke, 1941; Daily, 1941; Bramwell et al, 1960) and a few instances of abducent nerve paralysis (Duane, 1923; Walsh and O'Doherty, 1960; Friedman et al, 1961).

Much rarer still were reports of Parinaud's Syndrome complicating migraine. Since the report by Vagelsang in 1932, we have not come across any further descriptions of this complication. The pathogenesis of the upward gaze paralysis is uncertain but oedematous swelling of the superior corpora quadrigemina or of their blood vessels are possible explanations. In our case described above we felt that it was not justified to proceed to angiographic studies as the patient had recovered completely.

REFERENCES

1. Duane, A.: Recurrent paralysis of the eye muscles with special reference to ophthalmoplegic migraine. Arch. ophthalm., 52, 417-435, 1923.
2. Friedman, et al: Ophthalmoplegic migraine. Transactions Amer. neurol. Assoc., 86, 169-172, 1961.
3. Friedman, et al: Ophthalmoplegic migraine. Amer. med. Ass. Arch. Neurol., 7, 320-327, 1962.
4. Snell, S.: Recurrent paralysis of the third nerve, associated with migraine. Ophthal. Rev., 4, 181-181, 1885.
5. Snell, S.: Recurrent third nerve palsy associated with migraine. Ophthal. Rev., 12, 219, 1893.
6. Spicer, W. T. H. and Ormerod, J. A.: Recurrent paralyses of ocular nerves. Trans. Ophthal. Soc. U. K., 16, 277-298, 1896.
7. Vogelsang, K.: Zur Klinik der ophthalmoplegisch migraine. Z. Angenheilk, 77, 328-333, 1932.
8. Walsh, J. P. and O'Doherty, D. S.: A possible explanation of mechanism of ophthalmoplegic migraine. Neurology (Minneap.), 10, 1079-1084, 1960.