POSTCONCUSSIONAL SYNDROME **MEDICAL APPENDIX**

(post-traumatic syndrome)

1. Various attempts have been made to formally classify psychiatric disorders, the two major systems being:

    1.1 The **ICD-10 Classification of Mental and Behavioural Disorders** (World Health Organisation, Geneva) is part of the 10th edition of the International Classification of Disease. This appendix follows the common abbreviation of **ICD-10**. It is the international system used by the majority of clinical psychiatrists in Great Britain.

    1.2 The **Diagnostic and Statistical Manual of Mental Disorders (fourth edition)** (American Psychiatric Association Washington DC). References to it in this appendix follow the common abbreviation of **DSM-IV**. It is a system devised mainly by and for workers in the USA, however UK psychiatrists were consulted in its formulation.

2. The two systems above have been in existence for many years but only in their current editions have they been closely comparable.

3. This appendix is generally based on the ICD-10 system with any major comparisons and distinctions with DSM-IV being discussed where relevant.

DEFINITION AND CLINICAL MANIFESTATIONS F 07.2

4. Most people who sustain a mild to moderate head injury experience complete recovery, however a small subgroup continues to have symptoms for months or years after the incident. This postconcussional syndrome follows a head injury usually, but not inevitably, of sufficient severity to cause loss of consciousness. It does not include conditions such as subdural haematoma, normal pressure hydrocephalus and other such complications of head injury which are diagnosable causes of psychiatric symptomatology.

5. The symptoms are mainly headache, dizziness (which lacks the features of true vertigo) and varying degrees of irritability, subjective poor concentration and memory impairment, fatigue and insomnia.

6. A distinction has been made between early and late symptoms. Early symptoms are those reported immediately after regaining full consciousness or by the following morning. Two of these symptoms, headache and dizziness are seen as relatively enduring and others, in particular vomiting, as resolving quickly. In contrast late symptoms are first reported several weeks after the injury and include irritability, difficulty concentrating, impairment of memory and insomnia.

7. In addition to headache and complaints of non-specific dizziness, fears of permanent brain damage may lead to depression and anxiety which enhance the original symptoms thus leading to a vicious circle. Some patients become hypochondriacal and may adopt a permanent sick role.

8. In DSM-IV “post concussional disorder” appears only in the appendix relating to conditions for which there was insufficient information to include them in the main body of the classification system. A set of criteria on which future research may be based is suggested, the main difference from ICD-10 being that impairment of cognitive functioning is included in addition to the neurobehavourial symptoms.

AETIOLOGY

9. In the short term, MRI changes have been shown to be present following even relatively mild head injuries, however these changes usually resolve within 6 weeks and are gone by six months to a year. The aetiology of sustained dysfunction beyond this time appears to be multifactorial, explanations of its pathogenesis ranging from pre-existing neurosis and malingering to persisting organic pathology. The latter theory however is based on research in the mid 1970s when MRI scanning, which could detect the presence of minor abnormalities, was not available.

10. Several factors in psychiatric disturbance after mild head injury have been identified these being mental constitution, emotional impact of the injury, emotional repercussions of the injury, the presence of secondary gain as shown by compensation and litigation, premorbid personality and the individual’s response to any intellectual impairments.

11. More recent theories have suggested that both early physiogenic and later psychological factors are involved and the longer the symptoms endure, the more important is the role of psychological factors.

CONCLUSION

12. Minor head injuries may result in prolonged symptoms of headache, non-vertiginous dizziness, fatigue and subjective complaints of poor concentration and memory. There may be minor changes on MRI scanning in the initial phase which resolve within a year. Psychological factors including personality variables, the subjective interpretation of the injury, secondary gain and other psychological factors have important roles to play in the prolongation of symptoms.

REFERENCES

The ICD-10 Classification of Mental and Behavioural Disorders: Clinical Descriptions and Diagnostic Guidelines. 1992. Geneva. World Health Organisation. p67-68.

Diagnostic and Statistical Manual of Mental Disorders. 4th Ed. 1994. Washington DC. American Psychiatric Association. p704-705.

Lishman W A. Organic Psychiatry. 1987. London. Blackwell Scientific Publications. p168-171.

Karzmark P, Hall K and Englander J. Late-onset post concussion symptoms after mild brain injury: the role of pre-morbid, injury-related, environmental and personality factors. Brain Injury. 1995;9:21-26.

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