Cerebral hemorrhages presenting as reversible clinical entities

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7 cases of cerebrovascular lesion (6 supratentorial and one subtentorial) manifesting clinically as reversible episodes proved on CT to be hemorrhagic.

Key-Words: Reversible cerebrovascular episode — reversible cerebral hemorrhage — area of CT hyperdensity

Introduction

The use of computer tomography (CT) in the study of cerebral vascular lesions resulted in the detection of areas of hyperdensity, denoting intraparenchymal blood, in a small percentage of cases in which the clinical evidence pointed to ischemic disease [4]. The sites were very varied and the course was not that expected of a hemorrhagic lesion. Supratentorial sites have been observed [2,7]. Cerebellar hemorrhages have been described in the form of hematomas of the white matter [9,12]. They have been seen in the pons [5,12], where for the first time such a lesion proved to be reversible [5,7]. Recovery from a pineal region hemorrhage has recently been reported [1]. And quite recently a case of double bilateral hemisphere hemorrhage followed by rapid recovery has been described [10].

Results

On CT scanning the lesions proved to be hemorrhagic. They all appeared as hyperdense areas with a more or less marked edematous surround, denoting the presence of a collection of blood within the parenchyma. Of the 7 lesions 6 were supratentorial and one was in the midbrain. See the table for the clinical features of these cases and figures 1-2 for the CT images.

Discussion

Loeb [6,7] recently put forward a classification of cerebrovascular accidents based on the clinical course. He recognises the following entities: RIA (reversible ischemic attacks), which he divides into two subclasses: TIA (transient ischemic attacks), in which the episode is of brief duration and the neurological pattern normalises within 24 h, and PTIA (protracted transient ischemic attacks), in which recovery takes longer.

These vascular events that tend to improve have been given other names, like RIND (reversible ischemic neurological deficits), when the episode takes more than 24 h but less that 3 weeks to clear. Loeb [8] admitted that the classification was arbitrary for he himself has seen complete
recovery even after 60 days (SFR: stroke with full recovery).
In contrast to reversible deficits there are obviously evolving deficits, termed ACND (actively changing neurological deficits). They either improve, after going through several phases, or deteriorate (phase of progressing stroke or stroke in evolution) to CS (completed stroke).

The ischemic nature of reversible vascular events has been accepted without question since 1862 [11], first under the name of vasospasm and then under the present name, cerebrovascular insufficiency. The time factor seemed to be a sufficient guarantee of nature. Doubts as to a possible nonischemic genesis were reserved for so-called Minor Strokes, which are reversible.