

There was at present no evidence, either clinical or radiological, of recurrence in the first two cases. The third case had only recently been treated.

ROLE OF PLATELETS IN THE CAUSATION OF CEREBRAL VASOSPASM

J. M. RICE EDWARDS, BRIAN BULL, JOSEPH THOMPSON, and GEORGE AUSTIN (London) noted that the release of various vasoactive substances from platelets was thought to account for cerebral vasospasm after subarachnoid haemorrhage. That this was so in acute experimental vasospasm was confirmed by experiments on the cat's basilar artery *in vivo*. It had been shown that agents inhibiting the release phenomenon prevented spasm even when blood coagulated normally. It was, however, doubtful whether the release phenomenon was implicated in the delayed chronic vasospasms seen in humans after subarachnoid haemorrhage, but examination of the adventitia of cerebral vessels in monkeys with prolonged vasospasm did show that platelets adhered to the vessels and might well be able to influence the artery walls. It was suggested that delayed chronic vasospasm might be caused not by the release of vasoactive substances such as 5-hydroxytryptamine (because this was released rapidly and early) but by the release of substances during the disintegration of platelet lysosomes, which had an injurious effect on vessel walls.

ANTERIOR COMMUNICATING ARTERY ANEURYSMS

R. H. SHEPHARD, A. R. CHOUDHURY, and F. S. KAISY (Derby) had studied 194 cases of ruptured anterior communicating artery aneurysm which had been investigated and treated by one surgeon between 1958 and 1973. All patients who had been considered likely to survive the ictus had been admitted, and there were 99 females and 95 males in the series. In 102 cases there had been more than one episode of haemorrhage. Associated medical problems were present in 42. Bilateral carotid angiography was carried out, and 12 were shown to have multiple aneurysms.

The policy of treatment was early operation. The average time interval between haemorrhage and operation was eight days, delay in most cases being due to the mode of reference. The decision to operate was made mainly on the conscious level of the patient, a minimum conscious level of reasonable response to voice being essential. Operation had been performed on 140 cases. In 95 the base of the aneurysm had been clipped, in 12 the aneurysms had been clipped and wrapped, wrapping only had been carried out in 12, and clipping of the dominant anterior cerebral artery adjacent to the aneurysm had been done in 21.

Of the 54 cases considered unsuitable for surgery, 12 were aged and complicated by generalized vascular disease in three instances, five had coronary heart disease, and four had been referred too late. Forty-two patients were considered unfit for surgery because of very poor neurological, circulatory, and respiratory states.

Thirty-two of the 140 patients submitted to surgery died within three months of operation. The operative mortality was 23%. Sex did not appear to influence the mortality rate, which was higher in hypertensives (33%), in patients over 50 years of age (35%), and in patients with multiple haemorrhages (33%). The outstanding facts emerging from this analysis were that the mortality in patients with intracerebral haematomas was low (16%), and was only 11% after a single haemorrhage. A follow-up study of the 108 survivors was carried out for a period from 16 months to 16 years, six cases were lost to follow up, and 11 died. Nine of the late deaths were due to unrelated causes, and two followed recurrent haemorrhage. In the remaining 91 cases the results were poor in nine who were totally disabled, fair in 14 who had to change their jobs because of partial disability, and good in 68 who were able to return to their previous occupations. Of the patients who were not submitted to surgery, 32 died within three months of haemorrhage, giving a mortality rate of 59%. Delayed deaths occurred in five patients, being due to unrelated causes in three, and to unknown causes in two. Of the 17 survivors after conservative management, seven were totally disabled and 10 were reemployed. Only four were able to return to their previous jobs.

It was concluded that the outlook for patients with ruptured anterior communicating aneurysms was significantly better after surgery than after non-operative treatment. The exclusion of aneurysms from parent vessels by occluding the bases of the aneurysms could be undertaken with acceptable results. The aim should be operation after a single haemorrhage.

WIND IN THE HEAD

G. K. TUTTON (Preston) noted that fractures involving the accessory air sinuses or mastoid air cells were the commonest causes of pneumocephalus, which was almost symptomless except when it attained a large size when it caused headache and drowsiness, or when it entered the ventricles when Hippocratic succussion was both a sign and a symptom. Cerebrospinal fluid rhinorrhoea indicated the potential danger of infection. The causes of pneumocephalus were infection, as with an abscess, accidental or surgical trauma, and embolus. The essential factors leading to trapping of air inside the brain were a fracture involving an accessory air sinus together