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## Clinical Aspects of Carotid Thrombosis

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My observations are based on a study of 19 cases collected from the records of the Manchester Royal Infirmary. All have occurred within the last five years and for access to some of the cases I am indebted to the kindness of my colleagues. I have no doubt that this number does not give us a true notion of the incidence of the condition, for, on the whole, we have tended to limit the use of angiography to cases of suspected cerebral tumour and when the lesion has appeared to be clearly vascular in nature we have been somewhat diffident about the propriety of carrying out angiography. The increasing use of angiography will doubtless before long make this a common, if not indeed a fashionable, diagnosis. In this brief study I shall not concern myself with pathological or radiological details, but will limit my remarks to an analysis of the clinical features.

OF the 19 cases all but one occurred in the fifth and subsequent decades. In 8 cases the disease showed itself by an abrupt and severe hemiplegia. In the other 11 the onset was either gradual or remittent. Repeated or slowly increasing monoplegia was a feature of 6 of these 11 cases and in 3 there were recurrent attacks of dysphasia. The 2 remaining cases in this group showed curious sensory disorders in one hand, recalling, in fact, a peripheral nerve lesion, and the true diagnosis was only revealed when a definite hemiplegia finally made its appearance. In the great majority of cases paralysis greatly predominated over sensory loss. Hemianopia occurred in only one case. It is plain that in many respects and, so far as this study goes, in regard to the age incidence, this condition offers few striking differences from classical cerebral thrombosis. That the diagnostic difficulties are great is further shown by the fact that in no less than 8 of these 19 cases neoplasm was considered as the most likely diagnosis.

In the present state of knowledge it is probably impossible to arrive at a correct diagnosis without the aid of angiography. Our suspicions should, I think, be aroused when we are confronted with attacks of recurrent paresis or dysarthria. These recurrent or relapsing symptoms have, on several occasions, been observed to occur over as long a period as two years. In this series we did not obtain any help from the degree of pulsation in the carotid vessels and in fact in only 3 instances was it thought that the pulsation was significantly diminished on the affected side. Up to the present, transitory loss of vision in the ipsilateral eye has not been encountered and, in common with most observers, we have not met with permanent ipsilateral blindness following the final attack of thrombosis.

At the present time the differentiation of this condition from ordinary cerebral thrombosis is probably of academic interest, but the time may come when its recognition will have practical importance.

## Thrombosis of the Carotid Artery

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To obtain some idea of the frequency of carotid thrombosis in cerebral angiography the last 1,800 angiograms performed at the National Hospital, Queen Square, were reviewed. Among these were found 22 cases of carotid thrombosis, giving a percentage incidence of about 1.2.

Analysing the positions at which the block was demonstrated, it was shown that one was in the common carotid artery, 16 were either at the origin of the internal carotid artery or within its proximal 3 cm., and the remaining 5 cases were in the carotid siphon.

The clinical diagnosis prior to angiography was also noted and it was found to be correct in 7 of the cases. In 2 other cases an aneurysm on the carotid siphon had been diagnosed, and after the block had been shown, it was assumed that the aneurysm had probably thrombosed and that this process had spread to involve the main artery. Both patients had a palsy of the III and VI cranial nerves on the same side as the thrombosis, and one showed a ring shadow on the plain X-ray of the skull, which probably represented the calcified aneurysm.

6 other cases were diagnosed as having a cerebral tumour, 4 as a cerebral vascular accident, 2 as a cerebral angioma, and in 1 no diagnosis was made.

In one of these cases, autopsy examination revealed a carcinoma of the bronchus with cerebral secondaries as well as a bacterial endocarditis; so it is possible that other cases may have had a different underlying pathology, with the carotid thrombosis as a complication.