

CLINICAL NOTES ON SOME COMMON AILMENTS.

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APOPLEXY.

We will now consider a condition which is not only a common ailment, but a not infrequent end to an active life. Various names have been assigned to it in popular phraseology, and of these perhaps the commonest is a "stroke" or a "seizure." The term which I have chosen, however, has the merit of being both common, and fairly accurate in so far as a description of one of its prominent symptoms goes, for it is derived from a Greek word meaning "to strike to earth," which is exactly what happens to a large number of its victims when they are attacked.

The cause of the condition is the rupture of a blood vessel in the interior of the brain, followed by bleeding into the cerebral tissue itself, but before we proceed to describe what happens to the patient, we must first investigate the cause of the hæmorrhage.

The arrangement of the blood supply to the parts inside the skull is a little peculiar; if we take any other part of the body, we find that blood is delivered to any given area by more than one set of arteries: there may be two or even three or four, so that if one vessel be blocked, the part does not suffer because the blood can get round another way. It is this fact which enables us for instance to tie the main artery of a limb if it happens to be wounded or diseased. The limb does not die, but after a short interval the collateral circulation, as it is called, is established, and the parts originally supplied by the affected artery receive as much blood as before from another vessel.

Inside the skull, however, this is not so. There is a very free blood supply from the carotid, and vertebral arteries on each side, but the branches of these vessels do not interlock, or "anastomose" to any great extent. Consequently, if a blood vessel gives way or becomes blocked, the part which it supplies is permanently affected. Moreover, the vessels in the brain are more likely to give way than those in a limb for instance, because they are surrounded by soft brain tissue instead of by firm muscles. Consequently in any person whose arteries are more likely to give way than normal, the brain runs a greater risk of damage than any other part, and the consequences of such trouble are very serious, and often irreparable.

But why should blood vessels give way at all? Anyone who has seen and handled a healthy artery must have been struck with its elasticity, and it is obvious that for rupture to occur, the artery must in itself be diseased. This is in fact the main factor; the vessels have degenerated, and in place of the elastic tissue is a chalky deposit which we know as atheroma, and which renders the affected vessels brittle. In addition to this, we usually have another factor, namely, that for some reason or other the pressure in the vessel itself is unduly high.

The main causes of the arterial degeneration are alcohol, gout, and syphilis, but it would be a very grave error to assume that every one who is struck down with an apoplectic fit has been previously affected by one of these more or less preventible ailments. Another cause is old age itself, and in fact, one may say that in old people disease of the cerebral blood vessels is almost a normal, and certainly a permissible method of death. And we may get cerebral hæmorrhage in people who have become prematurely old from excessive mental or bodily strain, and the stress of modern life has certainly lowered the age at which the trouble is likely to occur.

Then the blood pressure may be unusually high from kidney disease, or from the state of chronic high arterial tension which is associated with persistent indulgence in meat foods and alcohol, especially if this be combined with hard mental work and little physical exercise. Compare the "seizure" of Thackeray's Bishop of Bullocksmithy.

I have taken hæmorrhage from a ruptured vessel as the commonest vascular lesion, but it is obvious that anything which cuts off the blood supply to a part of the brain may give rise to the same symptoms, and we may have embolism, or blocking of a vessel with a little bit of tissue from another part of the body—commonly a piece of a damaged valve from the heart—or thrombosis, that is clotting of the blood in the vessel itself—from anæmia, or some bacterial infection of the blood—giving rise to clinical signs which resemble more or less closely those which we shall describe as due to hæmorrhage.

It is obvious that the results of the hæmorrhage will differ according to the part of the brain which is affected, and we will come to the differences later on, but there are certain signs which are due to the sudden rupture of the vessel itself, independent of its situation in the brain, and which constitute the "apo-

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