nothing. This confusion arises in great measure from the stertorous breathing, converting all cases in which it is present into cases of apoplexy *plus* suffocation.

It is agreed that there are cases of apoplexy in which the face is pale, and the pulse small, and in which bleeding is not to be thought of, and also that there are cases in which stertor is not present; but I cannot, with all my diligence, find out from any works that have been open to me, whether these two conditions, that is, the pale face, and the absence of stertor, were co-existent. There are no observations made by any author as to the position of the patient in the non-stertorous case.

Suffocation, added to grave mischief in the brain, must of necessity affect not merely the symptoms of progress of cases, but also their mortality. Those only who have observed the extraordinary change on the removal of suffocative stertorous breathing, can judge how the diagnosis and prognosis are affected by it, and, not less so, the treatment and morbid anatomy.

Most modern writers on apoplexy adopt the general views of Dr. Abercrombie, and naturally, from the broad division of cases into sthenic and asthenic, are disposed to bleed in the former, and to avoid it in the latter; whereas, if we look upon the hard slow pulse, as the result of the heart labouring to overcome an obstruction in the lungs (suffocation), we shall at once see that our first duty is to remove this obstruction, and thus simplify the case.

Heberden and Fothergill were opposed to bleeding in any case, and the latter has made some curious suggestions which pertain to the subject of this paper. He says that "even the hard, full, and irregular pulse, which seems imperatively to call for a free use of the lancet, is often an insufficient guide, since it may be that struggle which arises from an exertion of the *vires vitæ* to restore health." From what has already been said, you will readily guess that I should say, "this strong pulse arises from an exertion of the *vires vitæ* to overcome vascular obstruction caused by gradually increasing suffocation."

Niemeyer, more than others among recent authors, has attempted to be systematic, and to clear away the confusion attached to apoplexy; but, like others, he fails, from not discriminating between the apoplexy and the suffocation. He believes that the shock and oppression of the apoplectic state arise from anæmia of the brain-substance, from sudden compression of the cerebral capillaries; this anæmia is always seen after death, and is shown during life by the very symptom which has always had a contrary interpretation—"a remarkable pulsation of the carotids." This, instead of being a sign of increased pressure of blood to the head, really indicates that the flow of blood into the skull is obstructed "by the space", he says, "in the skull being affected, so as to prevent the escape of blood from the afferent vessels;" throwing the blood back, as it were, into the carotids.

As a consequence of this view, under the head of treatment, he says, "it is evident that, under some circumstances, venesection is a very useful remedy; under others, it is very injurious, and the indications for it may be very exactly given. In order that as much arterial blood as possible may enter the brain, we must try to facilitate the escape of venous blood, without however, diminishing the propelling power too much" (what a plea is this for removing suffocation); then, he continues, "if the impulse of the heart be strong, and its sounds loud; if the pulse be regular, and no signs of commencing œdema of the lungs exist, we should bleed without delay. If on the contrary, the heart's impulse be weak, the pulse irregular, and the rattling in the trachea has already begun, we may be almost certain that bleeding would only do harm, since the action of the heart, which is always weakened, would be still more impaired, and the amount of arterial blood going to the brain would thus be still more decreased."

The simple illustration of some of my early cases will best illustrate what usually happens in a case of apoplexy, and how it may best be managed.

CASE.—In October, 1863, Miss B. was seized with apoplexy. On my arrival there was a partial return to consciousness, and the left side was found to be paralysed; there was pharyngeal stertor when in the recumbent pos-