the subdural space; (3) in the subarachnoid space and in the meshes of the pia mater on the surface of the brain; (4) in the substance of the brain or in the ventricles.

As the time at our disposal will not permit us to take up a discussion of the points in connection with these four situations, and as the case we present to-night comes under the first classification, we shall, therefore, confine ourselves to that form of hemorrhage which takes place between the dura mater and the skull proceeding from a wounded middle meningeal artery.

Now, extravasation of blood between the dura mater and the skull is much less common than that due to injury or laceration of the cortex, which is by far the commonest, but has the distinctive feature that when it does occur the quantity is often quite large. However, even here the quantity is not very large in the great majority of cases, but, as we shall see later on, the case we are about to present quite exceeds any amount recorded, so far as we have been able to ascertain.

Symptoms.—The only certain definite symptom of extravasation of blood is gradually increasing paralysis and insensibility, ending in coma within twenty-four hours of the injury. In a typical case there are three distinct stages, viz.: (1) Concussion following the injury; (2) a temporary return to consciousness and a continuance of the same for a time; (3) coma gradually supervening.

As accessory signs the following may be mentioned: (*a*) Paralysis, often preceded by twitching of the muscles, if the clot be over or close to the motor area; (*b*) certain eye symptoms, such as passive congestion of the eyeball, pareses of some of the ocular muscles and protopsis, with dilated pupil, all due to pressure of the clot on the cavernous sinus, when the extravasation extends to the base of the brain; (*c*) where a fissure exists in the bone, blood may filter through into the temporal region and produce a marked bulging or fulness there.

The amount of concussion or stunning varies, depending upon the severity of the cause, ranging from a slight momentary giddiness and confusion of thought to the most profound insensibility. The period of consciousness is generally of short duration, often only an hour or an hour and a half, sometimes, even, much shorter, the concussion rapidly passing into compression almost without an interval, depending upon the amount of, and the rapidity in which the blood is extravasated. The following case will illustrate.

The patient, J. B. H., was brought into the Toronto General Hospital, Tuesday, December 18th, 1903, at 11.30 a.m., by the