

of a single dose, are as follows, though in very strong, robust, and large persons, a somewhat larger dose is required, never, however, exceeding ten minims:

1. The pulse is increased in the course of from five to ten minutes, or even less in some cases, by about twenty beats in a minute, and is rendered stronger and fuller. At the same time, there is a feeling of distension in the head, the perspiration is largely increased, the face is slightly flushed, and occasionally there is a mild frontal, vertical, or occipital headache, or all combined, lasting, however, only a few minutes.

2. A feeling of exhilaration is experienced, which endures for several hours. During this period, the mind is more than usually active, and more capable of effort. This condition is so well marked that, if a dose be taken about bedtime, wakefulness is the result.

3. The quantity of urine excreted is increased, when other things are equal by from eight to twelve ounces in the twenty-four hours.

4. The expulsive force of the bladder, and the peristaltic action of the intestines are notably augmented, so much so that, in elderly persons in whom the bladder does not readily empty itself without considerable abdominal effort, this action is no longer required, the bladder discharging itself full and strongly, and any existing tendency to constipation disappears, and this to such an extent, that fluid operations are often produced from the rapid emptying of the small intestine.

5. A decided increase in the muscular strength and endurance is noticed at once. Thus I found, in my own case, that I could "put up" a dumb-bell, weighing forty-five pounds, fifteen times with the right arm, and thirteen times with the left arm, while, after a single dose of the extract, I could lift the weight forty-five times with the right arm, and thirty-seven times with the left arm.

6. In some cases in elderly persons, an increase in the power of vision is produced, and the presbyopic condition disappears for a time.

7. An increase in the appetite and digestive power. Thus, a person suffering from anorexia and nervous dyspepsia is relieved of these symptoms, temporarily, at least, after a single dose hypodermically administered.

These effects are generally observed after one

hypodermic injection, and they continue for varying periods, some of them lasting for several days. In order that they may be more enduring, two doses a day should be given every day, or every alternate day, as may seem necessary—one in the morning and one in the afternoon, and kept up as long as the case under treatment seems to require. The most notable effects are seen in the general lessening of the phenomena accompanying advancing years. When some special disease is under treatment, the indications for a cessation of the injections will be sufficiently evident, either by an amelioration or cure.

To the substance obtained in this manner, and held in solution, I have given, as stated, the name of "cerebrine" as the one, in view of its origin, most appropriate.

I have employed the solution of "cerebrine" with curative effects, in many diseases of the brain and nervous system. It is almost specific in those cases of nervous prostration—the so-called neurasthenia—due to reflex causes, or excessive mental work, or persistent and powerful emotional disturbance, a hypodermic injection of five minims, twice daily, continued for two or three weeks, and without other medicine, being sufficient to produce cure. It has proved equally effectual in cases of cerebral congestion, in which the most prominent symptom was insomnia, sleep being produced usually in the course of two or three nights. I have also employed it successfully in migraine, hysteria, melancholia, hebephrenia—the mental derangement occurring in young people of either sex at the age of puberty—in old cases of paralysis, the result of cerebral hemorrhage. In neuralgia, sciatica, and in lumbago, it has acted like a charm, except in one case of facial neuralgia, in which it did not appear to be of the slightest service.

I have employed it in eleven cases of epilepsy. Three of these were of the *petit mal* variety; in two, the effect has been so marked, that I am not without the hope that cures will result, although I am not able, as yet, to speak positively on this point, the patients having been less than a month under treatment. In the other, no influence appeared to be produced.

Eight cases were of the *grand mal* variety. In two of these, the number of paroxysms has been reduced more than one-half, and greatly mitigated