in these cases, it would have been subject to strong suspicion, if not to actual blame, as the cause of death.

Lastly, there is an important point connected with the numerous alleged deaths from chloroform which seems to be overlooked or set aside, as undeserving of notice; and that is the extreme discrepancy prevailing in the account of *post mortem* appearances. In the case of any other poison producing death, we find certain specific and uniform indications of its peculiar toxic action; whereas in those ascribed to chloroform the *post mortem* appearances range from those presented by death from syncope, on the one hand, to those produced by asphyxia, or those of the very opposite characters to syncope, on the other; arguing it to be extremely probable that one or other of them was during, and not owing to, anæsthesia from this agent. I will add a single other quotation on this topic from the paper to which I have so largely ventured to refer. It is as follows.

"In the fifty cases collected by the late Dr. Snow, the condition of the heart was very various. In nearly twenty, it was either gorged or tolerably filled with blood. In others, it was empty, but stained with blood, showing that probably it had been emptied only at the *post mortem* examination. Dr. Berend of Hanover details, among others, ten cases, in all of which the heart was empty, flaccid, collapsed, and doubled upon itself. In other cases from time to time recorded, the heart was firmly contracted. In many it was diseased, and in not a few the cause of death was found in some other organ altogether, such as the spinal cord. Again, the opinions as to the mode of death are not less various. Dr. Sibson, in 1848, attributed the fatal result to death of the heart; Dr. Snow, to what he termed cardiac syncope; Dr. Black, to asphyxia; Caspar, to neuro-paralysis; Sansom, to both syncope and asphyxia, etc. A conflicting mass of evidence, from which it appears impossible to derive any other conclusion than that the deaths described were due to no one cause, but had been produced in a manner widely different, according to the circumstances of the case."

A word here may be said regarding nitrous oxide as an anæsthetic. Although in the daily use of this agent, I fear that we can scarcely yet place it in comparison with chloroform, allowing that its mode of action were similar, which is very doubtful. The limited sphere of its application in medicine and surgery, the condition of patients under its influence, and some of its possible bad effects not being immediate, but more likely to show themselves at an after date, preclude its being used as anything like a fair standard by which to judge of chloroform. It is an excellent, an invaluable agent in its own place; but neither in medicine nor surgery is it ever likely to supersede such anæsthetics as ether or chloroform. In fact, if such were attempted, it seems very doubtful whether its present small rate of mortality would not increase in rather a startling manner; while its efficiency as a substitute would be found at fault in many ways.

CASE OF ACUTE POISONING WITH CHLORAL-HYDRATE.

By DAVID YOUNG, M.D., Florence.

A FEW days ago, I was called to see a gentleman who had just recovered from an attack of delirium tremens. He was feeble looking and nervous, and wished me to prescribe for persistent sleeplessness. For many months previously, he had taken chloral-hydrate in doses of twenty-five grains, with excellent results; but, since his last attack, the medicine had failed to act as before. I suggested a slight increase of the dose, and ordered the following mixture.

R Chloral hydrat. ℥ij; glycerini ℥ij; syrapi ℥ss; aquæ q. s., ad ℥iv. Misce.

A sixth part to be taken at bedtime, and half a dose more in two hours, if necessary. I was hastily summoned in the night; and, when I reached the hotel, found the patient in a deep stupor, the breathing slow and difficult, and the surface of the body, especially the extremities, very cold. In reply to my question if he had taken the medicine as ordered, his wife told me that he had come home about three hours before, and had apparently been drinking. He said, just before he went to bed, "I will now take the doctor's draught", and poured out, as she thought, one dose. Shortly after taking it, he became very restless, complained of being breathless, and of severe cramps in the legs. On attempting to get up for a drink of seltzer water, he staggered and fell on the floor. His wife became alarmed; and, after lifting him up, discovered that the bottle which had contained the chloral was empty; he had taken the whole—180 grains.

I was immediately sent for; and, on arriving, found him as above

stated. Acting on the suggestions given by my friend Dr. Lauder Brunton for the treatment of this accident, I ordered blankets and hot bottles to be procured at once. In the brief interval which elapsed before they were got ready, I noticed the following points in the condition of the patient. His breathing was slow and difficult; respirations 11 in the minute. Pulse 76, feeble and irregular. The temperature in the axilla was 35.6 deg. C. (96.08 Fahr.). The first sound of the heart was indistinct, and its action feeble. The eyelids were opened with difficulty. The conjunctiva was deeply injected, and the pupil firmly contracted. The surface of the body was very cold.

The lower limbs were wrapped in warm flannel, and hot bottles applied to different parts of the body; and a gutta-percha water-bag was filled with hot water, and laid over the cardiac region, and the patient carefully covered with blankets. The effects of the warmth were decided, and soon apparent. The temperature slowly rose, the breathing improved, and the heart regained its power. Half a teaspoonful of Darby's extract of meat, with a teaspoonful of brandy in a small cupful of hot water, was now ordered to be given every two hours.

Six hours after the application of the warmth, and nine after the taking of the chloral, the patient's condition was noted as under. Breathing was tranquil; respirations 16 per minute. The heart-sounds were distinct; its action was somewhat tumultuous. Pulse 92, full and soft. The pupil was contracted. The conjunctiva was injected, and he complained of muscular pains in the arms and legs. The patient continued in a state of great drowsiness for fifteen hours. He was easily roused, but immediately went off again to sleep.

In two days, he was quite well. I have no doubt that the effect of the application of the warmth, in this case, was to prevent another being added to the list of those whose death has been caused by chloral injudiciously taken.

A NOTE ON ANGINA LUDOVICI.

By F. MURCHISON, M.A., M.B. Edin.,

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Two years ago, during my residence as medical officer in Harris, in the Hebrides, some cases of what I now believe to have been the *Angina Ludovici*, occurred among the natives of the island. The disease was different in its symptoms and peculiarities from any throat-affection that either my experience or reading had brought under my notice. I vainly tried to diagnose the malady, and as vainly read whatever medical literature of the past and present I had access to; but I could find nothing, having a name, similar to it. It attacked children and young persons of various ages. The youngest patient under my care might have been three years of age; the oldest was not certainly over thirty. The symptoms were uniformly of the same type, save that they were modified according to the diathesis and idiosyncrasy of the individual invaded. As a rule, the older the patients, the more intense were the sufferings, and the better developed were the throat-tumours that occasioned them. It is worthy of mention that the anæmic, pale, and pasty fair-haired, suffered in the proportion of six to one of the plethoric and healthy-looking; and that the disease among the latter did not occasion the prostration which it did among the former. Indeed, the cases among the absolutely robust were so few and far between, that I was induced—in the absence of a more plausible one—to adopt the theory that the sickness was one of the numerous manifestations of a scrofulous habit of body, incited into activity by the prevalence of very cold weather, insufficient clothing, want of cleanliness, and inappropriate food. All the cases were purely idiopathic, and independent of any local lesion. They all occurred in winter, and in close succession; but they were not confined to one isolated locality. One island seemed to favour the growth and development of the affection more than any other situation; but the six cases that occurred in it seemed to have arisen independently of infection for their origin, and rather to have commenced in an unhealthy locality, destitute of proper sanitary arrangements. No two cases occurred in the same family, although isolation of the sick from the healthy was not enforced; so that I am induced to believe that the disease was occasioned by climatic and insanitary influences rather than by contagion.

The disease began with a chill, a stiffness of the muscles that move the tongue and throat, a feeling of general *malaise*, discomfort and prostration, loss of appetite, and, in a word, with the feelings that are frequently the precursors of the specific fevers—symptoms which preceded the development of the disease in every instance. This incipient stage was followed by another of much distress and discomfort to the patient. The vicinity of the submaxillary gland, the gland itself, and