the amount of fourteen grains daily. She suddenly determined to give it up entirely. "Violent vomiting and purging were the result, but she persevered, and is now well."

There exists a difference of opinion in regard to the point of puncture. I have always secured the full effect of the drug when inserted at a point distant from the seat of pain, generally selecting the left arm above the elbow.

M. Charppe, who has performed many subcutaneous injections with the hydro-chlorate of morphine, asserts that they act more promptly, the nearer they are made to the seat of pain.

Dr. Lorent advises localization of the injection. Dr. Eulenberg states, that, in a case of double rheumatic sciatica observed by him, complete relief of pain for a space of from two to three days followed each injection, upon the side upon which the injection was made, while upon the other side the pain immediately returned upon the subsidence of the effect of the narcotic upon the nervous centres. His conclusions are: "After the subcutaneous administration the sensibility of the region injected is considerably diminished, while the corresponding symmetrical region of the other side of the body shows no change or a relatively much lesser degree of diminution. If an injection be made at a point where a sensitive (or mixed) nerve runs superficially under the skin, sensibility is diminished, not only at the place of injection, but also over the whole surface to which the nerve is distributed, nevertheless, in the greatest degree at the point of injection."

Phlegmonous abscesses not unfrequently form at the point of puncture. It is unaccountable why they should form in some cases only. During the past year I have had a large number of abscesses to form after injection. I generally make my own solution, and last June purchased one drachm of morphia, labeled with the name of a celebrated manufacturing chemist. All the cases in which I used this preparation have had terrible abscesses; they were some fifteen in number. As soon as I discovered this effect of the injection I secured another bottle of morphine, but of a different manufacturer. I used the same syringe and needles, and have not had an abscess since. I took the remaining morphia to a chemist for analysis. Unfortunately there was not sufficient remaining to produce positive proof of impurities in the drug. I would state that there did not appear to be any general poisoning of the system, but merely local irritation. Cauterization with the solid nitrate of silver at intervals appeared to be the most successful treatment.

Dr. George E. Jones (*Cincinnati Lancet and Clinic*, 1878) says:

"Injections under the skin are, as a general rule, painful, and are liable to produce abscesses.

"Deep injections are not painful, and are not so liable to produce abscesses.

"The injection fluid must be at least of the same temperature as the body."

Dr. E. Peyreigne (*Revue Med. de Toulouse*, xii, 309-320) reports phlegmonous abscesses following hypodermic injection of morphia chlorohydrate.

Dr. H. H. Kane considers that these abscesses are due in the majority of instances to (a) carelessness in injecting, (b) unclean needles, (c) a dirty or over-acid solution, or (d) a low condition of the general system, predisposing to inflammation and suppuration on slight irritation.

The question arises, in what diseases is the hypodermic injection of morphia indicated? By the introduction of narcotics into the cellular membrane of the body we have a mode of attacking and subduing cerebral excitability more rapid and more certain in action than the stomachic method. In a great number of diseases there can be no certainty about the stomachic dose. "In delirium tremens, for instance, the pill, the draught or powder, may lie in the stomach undigested; it may be vomited; it may be absorbed partly or entirely, and if the latter, so slowly as to do no good. In the meantime the life of the patient is at stake, and death from exhaustion may occur before that sleep, which would save the patient, can be procured. With the hypodermic syringe sleep can be secured or delirium quieted in a few minutes. The certainty of effect should follow, for the whole amount injected must be all absorbed and circulated. In the mentally overtaxed or the melancholic patient, the night administration will not cause sleep at all times; it sometimes rather arouses the brain; it may even keep the patient awake, in 'a calm state of doziness,' which has the equivalent effect of good sleep the next day. The patient will arise refreshed, mentally stronger and fit for his day's work."

Dr. Hunter asserts, that, "for derangements of the cerebral nervous system, we have, in the hypodermic method, a means of treatment, far exceeding, in its immediate efficacy, any other mode of medication."

Dr. C. Lockart Robertson (*Practitioner*, *May*, 1869) writes, that the "value of this treatment of mental disease is still much unappreciated, despite its satisfactory working. Prolonged wakefulness, maniacal excitement, obstinate and persistent refusal of food, or drink, or medicine, and destructive, suicidal tendencies, are indications for the employment of this treatment."

Dr. Bartholow speaks of the benefit being more conspicuous in the early stages of mania, and considers that to be the case, especially, in puerperal mania.

Dr. Anstie (*Reynold's System of Medicine*, vol. ii, p. 90) advises the hypodermic method to be employed in delirium tremens, in preference to giving the opium by the mouth.

Dr. Maudsly (*Reynold's System of Medicine*, vol. ii, p. 60) recommends this treatment in insanity. He adds the caution that at times it will not quench the fury of acute mania, and that successive injections, followed by brief snatches of fitful sleep, have been succeeded by fatal collapse.