Johnson (C.)

# SUICIDES.

BY

CARL JOHNSON, M.D.,

OF DENVER, COLORADO;

LECTURER ON GYNECOLOGY AT DENVER UNIVERSITY MEDICAL COLLEGE.

FROM

THE MEDICAL NEWS,

May 19, 1894.

[Reprinted from THE MEDICAL NEWS, May 19, 1894.]

# SUICIDES.

BY CARL JOHNSON, M.D.,
OF DENVER, ~~COLORADO~~;
LECTURER ON GYNECOLOGY AT DENVER UNIVERSITY MEDICAL COLLEGE

IN the performance of my duties as Police Surgeon during the past fourteen months I have treated forty-six cases of suicide and attempted suicide. They were very nearly equally divided as to sex: twenty-four were females, and twenty-two males.

The cause of the attempt was ascertained in thirty-seven cases. Ten were on account of lovers' quarrels. The greater part of these were among the class known as "kept women." Only one was a public prostitute. Eight were due to poor health, combined in five instances with poverty. Three were well-marked cases of melancholia. Two wanted to die because they could not quit drinking. Four were on account of trouble between man and wife. Seven were out of work and out of money. One had no money to defend himself against a charge of larceny, of which he claimed to be innocent. One was a mother who had just heard of the death of her child in Kansas, and had no money to enable her to go to its funeral; and one man, who knew himself to be impotent, married a young lady, and tried to do away with himself after several months of wedded misery. At least three-fourths of the

cases were partly under the influence of liquor at the time of making the effort at self-destruction.

In twenty-eight cases opium or some of its derivatives was taken. Three took strychnin. One took "Rough on Rats," which is composed principally of crude arsenic. One took half an ounce of fluid extract of cactus grandiflorus; one took an ounce of carbolic acid; one drank several ounces of a saturated solution of chloral hydrate; and one tied a bottle of chloroform around her neck in such a way that the open mouth of the bottle was in contact with her nostrils. One took two ounces of "bromidia," and one disappointed young man chewed up a seltzer glass and swallowed it. Three attempted to suffocate themselves with illuminating gas. One of these claimed to have blown out the gas accidentally, but the surroundings and circumstances all indicated that it was intentional.

Another, a boy of sixteen, buckled a strap around his neck so tightly that he was comatose when discovered. This boy, who was an epileptic, had made a previous attempt in the same unique manner, had also jumped head first into a well, and thrown himself in front of a moving train, without injury each time. One severed his radial artery with a sharp-pointed harnessmaker's knife. One tried to shoot himself, and one was lying on the floor dead when found, having probably taken hydrocyanic acid. In addition to this one, five of the cases ended fatally.

Three of the fatal cases were due to opium, one to strychnin, and one to chloral hydrate. One of the fatal opium-cases, an old man, recovered from the direct effects of fifty grains of morphin, but died

ten days later from inanition and exhaustion as an indirect result of the attempt.

The case classed as death from strychnin should, perhaps, be classed as a death from an unknown cause. This man had repeatedly threatened to kill himself. He was suddenly taken sick, and I was sent for, and found him with well-marked symptoms of strychnin-poisoning. A stomach-tube was inserted, and his stomach well washed out. He recovered in a few hours, and said he had gone to a drug-store, called for ten cents worth of morphin, and taken it. He had presented no symptoms of opium-poisoning. A few days later he was taken sick with symptoms of gastritis, from the effects of which he died in about two weeks from the time I was first called to see him. I have never arrived at a satisfactory conclusion in regard to this man's death. The onset of the gastritis was not sudden enough to indicate that he had again attempted suicide by taking an irritant poison, unless it was taken in small and repeated doses, which would be very unusual for a suicide.

I have related this case at length to call attention to the fact that the gastritis might possibly have been caused by undue violence in the passage of the stomach-tube, and to emphasize the fact that too much care cannot be used in the passage of this instrument. The stomach-tube was used in twenty-three of these cases, and in no other instance could any bad effects be referred to it. I have used the lever stomach-pump, manufactured by Tiemann & Co., with a lisle-thread-tube. The ordinary soft-rubber-tube, with a funnel at the top, is almost use-

less for the treatment of suicides. I have on two occasions passed the tube down the trachea instead of the esophagus, but the mistake was discovered before any damage was done by simply placing the finger over the end of the tube, when the current of air accompanying respiration could easily be felt. This is a precaution which should always be taken before fluid is introduced. I know of a case in this city in which a man who had taken morphin with suicidal intent was actually drowned by this unfortunate method of pulmonary irrigation.

In the twenty-eight opium-cases reported the preparations taken were as follows: Morphin, 20; tincture of opium, 5; powdered opium, 1; aqueous extract of opium, 1; and one smoked opium, taking a large dose of morphin soon afterward. The smallest doses taken were half an ounce of the tincture of opium in one case, and three and one half grains of morphin in another. The largest dose was the entire contents of a dram-bottle of morphin. This quantity was taken in several cases. In all of the cases the drug was taken by the mouth.

I shall confine my remarks on treatment entirely to cases of opium-poisoning, as these are seen to be by far the most common. The symptoms are practically the same, no difference being observed, whatever the preparation of opium taken. Morphin in solution and the tincture of opium act more quickly than the solid forms, such as morphin pills and powdered opium.

The first stage of opium-poisoning is one of increased nervous excitability. I think that the small percentage of successful suicides by this agent is due

largely to this condition. The patient becomes talkative and excitable, and if he engages in conversation with anyone he almost always betrays the fact that he has taken poison, thus allowing early treatment to be instituted. When a large dose is taken, this stage may be very short. Its duration is from ten or fifteen minutes to three or four hours. The second, or the stage of somnolence, is ushered in by a feeling of drowsiness, and the patient goes into a condition very closely resembling sound sleep. This soon gives way to the third, or stage of narcosis. The patient is now entirely insensible to pain, the pupils are small, the face has a purplish hue, the respiration is slow and snoring, but usually not stertorous. The pulse is either strong and nearly normal, or rapid and weak. The skin is relaxed and moist, but the perspiration is rarely profuse. I am aware that these symptoms do not agree in some respects with those given by the authorities on toxicology, but I have given them as noticed in my own cases. As to the differential diagnosis, the contracted pupils, exceedingly slow respiration, and cyanotic face, are usually sufficient to establish a diagnosis.

The case mentioned in which chloral hydrate was taken puzzled me greatly. When I was called the patient, a woman of thirty-five, was lying asleep. I aroused her, and she muttered a few words, turned over, and went to sleep again. The pupils were normal or slightly dilated, the pulse about normal, but rather weak, and respiration normal. I expressed the opinion that she was only drunk, as her breath had a distinct odor of alcohol. I was told that

she had been drinking, but she had told her friends that she was tired of life, and was going to "take a dose." I gave her a hypodermatic injection of apomorphin, and, to my surprise, it failed to act. After waiting about ten minutes I tried to arouse her, but failed. The pulse became weaker and rapid, the respirations more shallow, and she died within half an hour of the time I was called.

Repeated injections of strychnin and digitalis had no effect either on the pulse or on the respiration. The countenance was natural, and the rhythm of the respiration was uninterrupted and noiseless to the last. I did not make a diagnosis until after death, when I found a bottle of a strong solution of chloral hydrate from which several ounces had been taken. The temperature of the patient was not taken.

A curious fact which has been noted by both my colleague, Dr. Wheeler, and myself in opium-poisoning is that several fatal cases have, after being unconscious for a long time, opened their eyes, moved their hands, and shown other signs of returning consciousness, dying almost immediately afterward. The patients have been pulseless and in a dying condition when this phenomenon occurred.

The first step in treatment is, of course, to empty the stomach. If the patient is still conscious or can be aroused, I depend on apomorphin hydrochlorate for this. I give one-fifth of a grain hypodermatically. This drug deteriorates if kept too long, and should be replaced by a new supply occasionally. As soon as the apomorphin has been given I have the patient drink as much water as he can be prevailed upon to

take. Free emesis occurs in from one to ten minutes. I believe that any patient seen early enough to induce vomiting in this manner by apomorphin will recover. In fact, most of them require no further treatment, unless it be simply to keep them awake if they show a tendency to go to sleep. The dangerous cases—those that require energetic treatment—are so profoundly influenced by the narcotic that the cerebral centers fail to respond to the irritation of the apomorphin.

If the case is too far advanced for apomorphin to be of service, I proceed to pass the stomach-tube, attach it to the pump, and inject about a quart of hot water. I leave this in for a few minutes, to allow it to dissolve whatever solids there may be in the stomach, and then withdraw it by reversing the pump. This is repeated several times, or until the water removed from the stomach is clear. In the meantime I have had prepared a quantity of hot, strong coffee. I now inject one or two quarts of this into the stomach. This procedure is almost invariably followed by an improvement in the respiration and a lessening of the cyanosis. The coffee acts as a physiologic antidote to the opium, although I believe the heat which is conveyed from the distended stomach to the solar plexus and diaphragm, and perhaps to the heart itself, to be more beneficial than any direct action of the coffee. I have used hot water when coffee could not be obtained, and the difference in the result was not appreciable.

I have often used coffee so hot that I could not bear my hand in it in this manner without bad after-effect, and consider it one of the most efficient rem-

edies at our command for stimulating the heart and respiratory organs in these cases. The coffee is pumped out as often as it becomes somewhat cooled, and replaced with hot coffee. I wish to lay stress on the importance of having the stomach fully distended with the hot fluid, as I think this to be an essential point.

It must be admitted, however, that this procedure is not without danger. If a gastric ulcer should be encountered it might result in serious hemorrhage, or even rupture of the stomach. I have supplemented this method in a few cases by rectal injections of coffee. I have found it difficult to induce the rectum to retain enough to distend the transverse colon, where it seems to me it would be of the most benefit. This difficulty might be obviated by injecting the fluid more slowly than I did or by using a rectal tube.

The galvanic current I have not had an opportunity of using, as a portable galvanic battery is not easily obtained. I hope at some future time to be able to make a report of cases treated with the aid of the chlorid-of-silver galvanic battery now on the market, which is easily carried to the bedside. I have used a strong Faradic battery for two purposes: First, for stimulating the respiratory muscles. To do this I place the positive pole between the shoulders, and move the negative pole from side to side along the anterior attachment of the diaphragm. I have failed to perceive much benefit from its use in this manner.

The principal use I make of the current is in keeping the patient awake. I leave the positive pole

as before, and touch the negative pole to the patient's lips, nose, ears, or eyelids as often as necessary. I have been able to keep patients awake in this manner when walking and slapping had failed. I regard the time-honored custom of walking and abusing a patient until he is exhausted as entirely unnecessary, and believe that it actually lessens the chances of recovery. It has seemed to me that if a healthy person who had taken no opium was put through the same treatment that these unfortunates are often compelled to undergo he would die of exhaustion. Much less, then, could a person whose vitality is already lowered by the action of a powerful narcotic be expected to withstand the added depression following the severe treatment so often persisted in.

The endeavor should be to save the strength of the patient, not to exhaust it. I always put the patient to bed, cover him up, put dry clothing on him if, as is usually the case, cold water has been thrown on him, and depend on the battery to keep him awake as described. In the absence of a battery, pulling the nose is nearly as efficient as walking the patient, and does not exhaust him.

As for drugs, I rely largely on strychnin sulphate. I give a twenty-fifth of a grain hypodermatically, and in extreme cases repeat this dose every ten or fifteen minutes, until there is twitching of the muscles or the breathing becomes spasmodic in character. Even after it is pushed to this extent the effects wear off rapidly, and it needs to be frequently repeated. I am convinced that I have saved several cases which would have died had not this drug been used. I usually give $\frac{1}{100}$ of a grain

of atropin, and repeat it twice at intervals of fifteen or twenty minutes. I think the importance of this remedy has been over-estimated. It certainly dilates the pupils, and theoretically it counteracts the systemic effects of opium, but I have failed to notice any decided beneficial effects from its use.

I have at times used digitalis, and I believe it to be of some benefit when the heart's action is weak. It has the disadvantage, however, of being slow in its action, even when given subcutaneously. I therefore depend largely on the more transient heart-stimulants, whose action begins more promptly. In a few cases I have given hypodermatics of aromatic spirit of ammonia. This is a very good diffusible stimulant, but has the objection of frequently causing an abscess at the point of injection.

When the patient has not been under the influence of liquor prior to taking the opium I sometimes give whiskey or brandy subcutaneously with good results. If the unconsciousness is long continued the catheter should be passed to prevent the possibility of reabsorption of the poison from the urine. I have frequently heard "morphin fiends" make the assertion that an overdose of opium would be counteracted by cocain. Acting on the suggestion I gave a man in the last stage of narcosis a quarter of a grain of cocain hydrochlorate every ten minutes until I had given him three doses. His pulse became very weak and rapid, and he died in a few minutes after the last injection. I have made no further experiments with cocain. In another case to which I was called a physician who had preceded me by an hour and a quarter had

treated the case solely by the subcutaneous injection of the tincture of iodin—for what purpose I cannot conceive. The man died soon after my arrival.

I believe the responsibility for a large percentage of the suicides in this city rests with the newspapers. A suicide written up in a sensational manner, accompanied, perhaps, by a picture of the deceased, is usually followed by a number of attempts by others within a short time. There are at all times in every city a number of poorly balanced individuals who need only the suggestion conveyed to them in this manner to determine them to make an effort to end their existence.