A HUNDRED AND FIFTY YEARS AGO

Extracted from an early issue of *The Practitioner*

TRANSFUSION OF MILK IN THREE CASES OF CHOLERA

EXTRACT FROM A LETTER TO THE EDITOR FROM EDWARD M. HODDER, M.D., TORONTO, CANADA

PREVIOUS TO THE LAST ADVENT OF CHOLERA, twelve or fourteen years ago, I suggested to my friend and colleague, Dr James Bovell, the propriety and probable success of transfusion of blood. He at once met me with the objection, that the supply would most likely fail, inasmuch as few persons would like to part with their blood during an epidemic of the kind, and if they did we could not be sure that the blood itself was not diseased.

Milk as an analogue of blood

This appeared to knock my scheme on the head at once, but I began to reflect, and to ask myself, what is the nearest analogue of the blood? And milk came to my mind.

The next question to consider was whether milk had ever been injected into the veins of man or animals, and what was the result? I found that Donne had injected it into the veins of dogs, rabbits, and birds, and that it did not kill them, but, on the contrary, he with Wagner, Gulliver, and others, were of the opinion that the white corpuscles of the milk were capable of being transformed into red blood corpuscles.

I then decided on the transfusion of milk into the human veins, should cholera pay us another visit. At length the true Asiatic disease made its appearance, and it found the City Fathers as unprepared for it as if such a disease had never existed. Dr Bovell and myself volunteered our services, and an old shed on the hospital grounds (used as a small-pox ward) was made the temporary cholera hospital.

A stout-built farmer

The first two or three cases were moribund when brought in; but the next day, about noon (the hour at which the medical officers of the hospital made their rounds), a stout-built farmer, who had come to Toronto on business, was admitted. He was in a state of collapse, cold, pulseless, blue and shrivelled; the secretion of the urine was arrested; there were vomiting and purging of rice-water fluid; in fact, he seemed dying.

I immediately got everything ready, and then sent a message requesting consultation with any of the medical officers who might be in the hospital, when four gentlemen came, and I asked them the following questions:

"*Do you consider this a genuine case of epidemic Asiatic cholera?*" "Certainly, and a very marked one."

"*Do you think anything can be done to save him?*" "Nothing; he is dying."

"*Would any medical treatment be likely to be of any use?*" "None."

"*Then he must die?*" "Yes."

" Then gentlemen," I said "I am about to try the experiment of transfusing milk into his veins. "If you do, you will kill him," was the reply. Thereupon I invited them to be present at the operation, but three out of the four left the building; the fourth remained, but would not assist.

" 'Then gentlemen,' I said 'I am about to try the experiment of transfusing milk into his veins.' 'If you do, you will kill him,' was the reply"

Everything being ready, I ordered a cow to be driven up to the shed; and, while she was being milked into a bowl (the temperature of which was raised to about 100°F) through gauze, I opened a vein in the arm and inserted a tube, and then filled my syringe (also previously warmed) and injected slowly therewith.

No perceptible change, either for better or for worse, took place; so, after waiting two or three minutes, I again filled the syringe, and injected seven ounces more.

The effect was magical: in a few moments the patient expressed himself as feeling better, the vomiting and purging ceased, the pulse returned at the wrist, the surface of the body became warm; in fact, the man rallied, and speedily recovered without a bad symptom.

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A woman, a drunkard by habit

The next day a woman, an habitual drunkard, was admitted in the same condition as the farmer. I transfused fourteen ounces of milk and in a few minutes the vomiting and other symptoms ceased, and she improved; but towards evening collapse came on again. I again injected fourteen ounces more milk, and she recovered, but after secondary fever.

A man, almost *in articulo mortis*

The third case was admitted almost *in articulo mortis*, but he rallied, then collapsed, as the woman did, and died during my absence from the shed.

Had I been present I would have injected more milk into his circulation, and he might have rallied again.

Resignations

Dr Bovell and myself then applied to the Corporation for a good cow, and a few articles indispensible for the comfort and well-being of the patients; these were refused and we thereupon sent in our resignations.

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