

ugated this point, are represented to be Dr. Garrod, of London, and Dr. Schmidt, of Dorpat; and the latter attempted to calculate exactly the loss the blood sustains in a given time, by the transudation of its serum on the skin, and in the intestines, and of a part of the fibrine that is washed away. But it is manifest that this process must vary according to the respective idiosyncrasies of cholera patients, the violence of the attack, and other causes; and it is not strange that, in this arduous attempt to measure accurately the crassitude and quality of choleraic blood, Dr. Schmidt should have failed, as his reviewers say he has.

And even if he had succeeded, *an bono*? The most elaborate chemical experiments on the distinctive characteristics of choleraic and normal blood neither shew the cause of the transudation—the great *arcana* manner lead to a knowledge of the proper treatment of the disease.

It appears that a great effort is made in the system to compensate the serious loss the blood is sustaining, by sucking fluid from all the tissues, and pouring it into the heart or large vessels; and some have imagined, that muscular spasms are owing to this sudden abstraction of moisture, which was necessary to the muscles, either at rest or in action.

The blood having lost most of its watery constituents, becomes of the consistence of tar or treacle, and is rendered uncirculeble in the smaller vessels. It cannot be acrified and heated in the lungs, nor penetrate the capillaries of the brain, and excite its proper and mystic functions. How, then, is life to be supported under these circumstances? The most obvious method to re-invigorate the vital powers is to restore the blood to its normal consistency, by the injection of an artificial serum of proper temperature; and no doubt when this was first practised in Edinburgh, in 1832, the operator believed he had in reality discovered the *elixir vitæ*, though not given by the mouth. But his triumph was only for an hour; an element of the blood could not thus be created—the forced mixture which had momentarily exercised electric influence soon separated, probably in the brain, for all the patients died with symptoms of cerebral congestion.

In 1832, at Kingston, in this Province, my friend Dr. Sampson and myself injected a quasi-serum into the veins of twenty poor emigrants in the collapse of cholera. The immediate restorative effects were wonderful, but they all died with symptoms of effusion on the brain.

During the last summer, Dr. Sutherland, Professor of Chemistry in the McGill University here, prepared, with the greatest care, an exact imitation of the serum of the blood, and injected the fluid, of blood heat, in three cases of collapsed cholera, but with the same result.

When collapse has taken place for some hours, all attempts at recovery appear to me hopeless, although it is doubtless our duty to persist as long