## A GUIDE TO MEDICAL AND SURGICAL NURSING.\*

## CHAPTER XX.--MODES OF DEATH.

I THINK that it will be useful to you if I tell you something of the different ways in which people die, for I daresay it has occurred to you that these ways vary considerably. Some people die instantaneously, as it were: they seem to have been quite well one minute, and are dead the next; others die so slowly that we are unable to tell the exact moment that they pass away from us. Some retain the full possession of their faculties to the very last, and others are unconscious to all around them for hours, or perhaps days, before they die.

You know that when the blood no longer circulates that life must cease, and an inquiry into the various modes of death really means an inquiry into the different ways in which the circulation of the blood may come to a standstill. I need not remind you that the respiration is entirely subservient to the circulation of the blood, and that the power by which both heart and lungs are worked and regulated belongs to the nervous system. Each of these systems must continue in action, or the circulation will stop and life will cease. The functions which these systems perform are called the vital functions, and the heart, the lungs, and the brain are called the vital organs. One cannot stop doing its work without the other two stoping very shortly. But the process of dying varies according to whichever of these organs it is which stops first.

First of all, there is a form of death which is caused by a want of the proper supply of blood to the heart. You see examples of this when people die of sudden and violent hæmorrhage, and you may have heard of cases in which death has been averted by the introduction into the veins of blood from a living person. Great pallor of lips and face attend this mode of dying, the proper name of which is death by anæmia. Cold sweats, dimness of sight, a slow weak irregular pulse may also be observed. Sometimes there is vomiting, great restlessness, and some degree of delirium, and convulsions generally occur before death.

There is another form of death which begins at the heart, which is known by the name of *death* by asthenia. In this case there is no deficiency in the supply of blood to the heart, but the heart is unable to contract as it should do. This takes place in some cases of death by poison. Death by

asthenia is also produced sometimes by some great shock to the nervous system, by great grief, joy, or terror. Cases of fatal concussion of the brain, and certain kinds of apoplexy terminate in this way. A slow form of this kind of death is manifested in acute peritonitis, in malignant cholera, and in mortification. The pulse becomes very feeble and frequent, and there is great muscular debility, but the senses and hearing generally remain perfect till the last.

We come now to the way in which death is produced by the stopping of the breathing, or, in other words, by a want of the proper arterialization of the blood. Death happens in two distinct ways here: in one case there is no air supplied to the lungs; in the other, power to use it ceases.

In the first instance, death is called dying by apnœa, or *asphyxia*, and may be produced in various ways—by smothering, drowning, choking, strangulation, &c.—in all of which ways the privation of air is sudden and complete. When death occurs by apnœa, there is at first a painful struggling for breath, to which succeed giddiness, loss of consciousness, and convulsions, after which all efforts cease, and the muscles become relaxed, but still the movements of the heart continue for a short time after all other signs of life are extinct.

Death in this way occurs in a space of two or three minutes, and the face is generally extremely flushed and swollen. It may be noticed in persons dying of bronchitis, in diseases of the heart and great blood vessels, in pneumonia, &c.

I have already spoken to you of coma, so that you will have no difficulty in imagining what this form of dying is like. I will only add that the want of due arterialisation of blood in this case proceeds from the stopping of the muscular actions required in breathing in consequence of insensibility. When there is only a suspension of the nervous power which produces these muscular actions, death may be averted by means of what is called artificial respiration, which must be continued until the insensibility has passed away. Of this artificial respiration I have given you an account in another place. In most forms of apoplexy death occurs in the way of coma; and many affections of the brain, both acute and chronic, terminate in this way. I will end this by a short quotation from a lecture on the different forms of death : "Life cannot be maintained without the circulation of arterial blood; and whenever a person dies, he dies either because no blood ciculates through his arteries, or because venous blood circulates through them."

To observe the law without regard to the legislator, is to violate it, as surely as our first duty is towards the legislator.

<sup>\*</sup> These articles are partially from the pen of the late Miss Alice Fisher and Mrs. Norris, and will eventually be published in book form, being revised by the latter.



