

my attention more particularly to restoring the vaso-motor nerves to their normal state; and the drugs I have found, as yet, most useful to this end have been the various preparations of ergot, belladonna, hyoscyamus, digitalis, aconite, bromide of potass, etc., all medicines known to have a specific action upon the vaso-motor nerves. Of course you must understand that I am speaking of inflammation, not of its consequences, neither am I speaking of inflammation, the result of specific poisons, such as syphilis, gonorrhœa, etc. Although I maintain that, even in these inflammations, they are directly due to the vaso-motor nerves, although indirectly to the irritation of a nerve centre from the specific poison. Of course if I know of anything that is acting traumatically in a nerve centre through the peripheral nerves, I use my best efforts to remove that cause of irritation.

Recognising, as I do, the success of Mr. Tindal's experiments in proof of atmospheric germ, bacteria, and believing that animal, vegetable, and mineral poisons are carried through the air from a thousand different sources, I am a firm believer in antiseptic surgery, of Lesterism as now well understood; but I don't believe that the danger from exposing a cut surface to the atmospheric air is due to the blood vessels, which, by the way, are usually tied up as quick as possible,—even veins, as Dr. Roddick has shown us, can be tied with as little impunity as arteries. I say the danger is not from exposing blood vessels, but the cut ends of the numerous peripheral nerves.

Mr. Haeckel has clearly demonstrated that there is no animal life without a nervous system, and he has equally demonstrated that there is animal life without a circulating or blood system. Therefore, according to his views, I was correct, when, in my previous paper, I said that the properties of animal life were in the nervous system. This is also evident from the fact that consciousness of the objective is the result of perception, and sensation is necessary to perception, sensation is even necessary to subjective consciousness; for although sensation can exist without self-consciousness (for as all matter has in it potentiality, so all matter has sensation but not consciousness), yet self-consciousness cannot exist without sensation, and Mr. Haeckel has clearly demonstrated that sensation is imparted to our consciousness through the sensory nerves, which take their origin from the skin that envelopes our bodies.

This physiology of the skin explains to us the

*modus operandi* of blisters, plasters, baths, counter-irritants, rubefacients, anæsthetics, hypnotism, electro-magnetism and metallotherapy, and suggests to us that perhaps much more could be done through the skin for the successful treatment of disease than has been hitherto done, in fact, as much as has been hitherto done through the mucous-membrane of our stomachs, which, after all, is only part of the skin that envelopes our bodies—a skin so closely allied to our brains and spinal cord as that we might properly define them to be one.

In the October number of *Brain* there is an article by Tschirieu which has a practical bearing on this question. It is a case of lesion of the spinal cord and skin of anæsthetic leprosy. After a microscopical examination of the spinal cord and skin, and finding the same disease in both parts, he thus concludes: "What relation there is between the degeneration of the cells in the grey matter and the connection between these and the phenomena of anæsthetic leprosy, are all questions which it will be for future research to decide definitively."

It appears to me that if Tschirieu had been aware of the intimate union that exists between the skin and spinal cord, he would have seen that the question is already settled. Nothangal found that irritation of the skin of children, even in remote parts of the body, caused fluxinary hyperemia, by first causing through the vaso-motor nerves sudden contraction of the arteries from irritation of the centripetal sensory nerves, which sudden contraction Eber says is always followed by sudden relaxation of the vessels, hence the hyperemia. But Eber did not then know what is now so well established, that the relaxation was due to the vaso-relaxer, which is an inhibitory nerve to the vaso-contractor. I suppose there are but few medical men who have not seen inflammation of the lungs from scalds on the thorax, and I see a case lately recorded of ulceration and perforation of the small intestines from a scald of the nates and legs, and it is an oft-told tale, how flogging on the back has produced pleuritis and pneumonia, yet moralists tell us to spare the rod and spoil the child. I say, use the rod and destroy the child's mental organization, if not his life, and here I remark with pleasure that I perceive England is at last about to abolish that remnant of barbarism, flogging in the army.