

OBSERVATIONS ON CANINE MADNESS.

BY M. PORTAL.

[From the Analytical Review.]

**M.** PORTAL begins his *Observations on the Nature and Treatment of Canine Madness*, with relating the signs of this disease as it appears in the canine species: but these, at least in its early stages, are very uncertain. All dogs which are mad do not bite: at least M. Portal saw a small spaniel which died of the disease, but never attempted to bite any of the other dogs of the house. Two, however, of these dogs licked his mouth, and were seized with the malady eight days after. But M. Portal does not inform us how the spaniel contracted the disease. It should seem, from his having been allowed to mix with the other dogs, that he was concluded to have been mad from the two dogs being taken ill after having licked his mouth. But that these dogs were seized with canine madness is not clear, as they appear to have been immediately killed.

After describing the appearances of the wound, and the pains in the neighbourhood of the part bitten, which precede the still more alarming symptoms of the disease, he says their extremities grow cold, and the sense of cold is sometimes so intense that the sufferers often describe it as seated in the very marrow of their bones. The pulse is small, the urine very clear, the skin rough and dry, and the perspiration considerably diminished. Some have had shiverings, and an intermittent pulse for a month previous to the commencement of the hydrophobia. These symptoms, accompanied by an affection of the respiration, and spasmodic contractions of the muscles of the lower jaw, and of those employed in speaking, form what he calls the first stage of the disease. In the second stage the cold is succeeded by heat, which diffuses itself through all the limbs, increasing with more or less quickness and violence, till at length it becomes, in the internal parts, most intense, especially in the head, the throat, and above all in the part bitten. The pulse rises generally in proportion as the heat increases, and the thirst becomes excessive. The urine ceases to be secreted, or becomes as red as blood, and the cheeks of fiery redness.

There are few diseases, in which we have received so little information from opening the bodies of those who have died of it, as in hydrophobia. Our author, after relating the observations of preceding dissections, gives us the history of two cases which he had the opportunity of exa-

mining himself. But we may remark, that there are few, if any circumstances, which have been constantly observed in all the dissections. The larynx and pharynx have been frequently found more or less inflamed; but in other instances such appearances have been scarcely perceptible. The pericardium has been generally found without any water in it; but in one of Morgagni's dissections there were three ounces of a yellowish fluid. The brain has often been found very dry, but in two or three of Morgagni's, and in one of M. Portal's, there was found in it a quantity of reddish serum. The blood is often fluid, but it is sometimes coagulated. Some of the bodies putrified rapidly, while others seemed as little prone to putrefaction. Hence dissection seems, in this disease, to prove to us rather what are not its causes, than to demonstrate what they are.

M. Portal, in treating on the symptoms of the disease, shews, that the dread of swallowing liquids is the effect of the excessive irritation which they experience in the organs of deglutition, and explains why they swallow solids so much more readily. The pain they sometimes experience from a light, he attributes to the increased sensibility of the nerves, which he observes enables them to distinguish small objects in a degree of light in which they would be quite invisible to others. He once remarked, he says, the same in a young physician labouring under a malignant fever. The affections of the organs of generation in both sexes he attributes to the same cause; and the whole of the symptoms he very justly considers as arising from an excessive sensibility of the nerves, and irritability of the muscular fibres, occasioned by the action of a peculiar virus.

With regard to the communication of the disease, M. Portal is of opinion, that the saliva of a mad animal is the only source of infection. The disease is not communicable by the sweat, the seminal liquors, the blood, or the milk. Men as well as animals, have drank the milk, and eaten the flesh of mad animals, without any ill consequences; and the ancients directed the persons bitten to eat the liver, the spleen, or dried blood of the mad animal. M. Portal goes on to observe, that it is introduced either by wounds or by the mouth. He calls in question the observations of the ancients which seemed to prove, that the saliva of a mad animal applied to the skin of an animal in health, was capable of producing the disease, remarking, that we no longer hear of any instances of persons being attacked with it, in consequence of attending upon persons afflicted with that malady, though it is well