and says that they only differ in the attacks being multiple, and in the circumstances under which they occur. Neither of these features seem to me to establish any material distinction between the two classes. Multiple attacks are, we well know, met with every now and then in chronic epilepsy. As to the attendant and originating circumstances, when the visible result is so similar, it seems to me very much like begging the question at issue, to affirm that the condition of brain they produce is unlike that which prevails in all cases of essential epilepsy. It is fully conceded that, among the cases of epilepsy occurring in our large towns, it is rare to meet with one where the morbid condition is not one of anæmia and weakness and undue mobility, rather than of sthenic excitement and plethora; yet I can by no means admit that the latter condition is to be excluded from our list of causes, and I believe the case I narrated at the beginning of this lecture to afford a fair instance in point. To the above evidence must be added that of Schröder van der Kolk, to whom we are much indebted for his minute examination into the changes produced in the nervous centres by this disease. He entirely dissents from the view that suddenly induced anæmia is the essential precursory condition of the epileptic attack. Among other observations, he says: "Equally little does this view find support from the fact that, before an attack, epileptic patients are usually more excited, more lively, and more irritable, and their face and their head manifest a greater degree of congestion. In one case, I was able to ascertain this with precision. In a young man aged 19, who, under the use of digitalis, had continued for a considerable time free from attacks, I found the heat of the head excessively great in comparison with that of the cheek," the temperature of the forehead and vertex exceeding that of the cheek by 13° Fahr. Scarcely fifteen minutes after this observation had been made, a violent attack came on. (Sydenham Society's translation, p. 299.) He has found positive advantage from the use of derivatives, issues, and setons or cupping to the neck; not only the epilepsy, but the consecutive dementia, being removed or greatly amended thereby.

I have often spoken to you of the varying quality of inflammatory disease; and I hope, from this review, you will be inclined to agree with me, that the same holds true of convulsive disorder.

PLUGGING THE POSTERIOR NARES IN CASES OF PERSISTENT EPISTAXIS.

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THE remarks on this subject by Dr. Thompson of Bideford, and his account of his method of introducing a plug into the posterior nares, are most interesting. A somewhat similar case came under my observation within the last few weeks.

I was sent for to a patient, of full habit, subject to frequent attacks of rheumatic gout, who was suffering from epistaxis. Plugging the anterior nares had been adopted prior to my arrival, though ineffectually. This was repeated, the plugs being saturated with tincture of matricaria. Cold affusions were applied, but without success. I then proposed plugging from behind. I passed a No. 10 elastic catheter (in which I had cut an opening opposite to the usual one at its extremity) through the nostril, till I was able to seize it and draw it forward through the mouth, and passed the string to which my plug was attached through the eye made in the catheter, which, when withdrawn through the nasal orifice, enabled me, by tension on the string, to bring my plug into its required position. I fixed the end of the string to the forehead with strapping. The effect of this plugging was satisfactory; and it became necessary in three or four days to remove the plug.

I have failed to find any account of this part of the operation in any of the text-books at hand; but the plan adopted was a very simple one. I re-inserted the string in the eye of the catheter, and ran the catheter along the string up the nostril, detaching the plug, which had previously been loosened by injections of lukewarm water, caught the plug at the fauces with dressing-forceps, and simultaneously withdrew it and the catheter from the nostril.

The operation, minor as it is, is one requiring some little manual dexterity—the more especially if the patient is, as in the case to which I referred, highly nervous; which feeling was greatly increased by the sense of suffocation experienced during the operation. Bellocq's instrument is not always at hand; but there are few surgeons who do not carry an elastic catheter in their pocket-cases, and consequently have the means ready to give relief to a state which is to a patient at once distressing, if not terrifying.

CONTRIBUTIONS

TO A NEW CHAPTER IN THE PHYSIOLOGY AND PATHOLOGY OF THE NERVOUS SYSTEM.

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II.—THE THEORIES OF NERVOUS INFLUENCE ON NUTRITION AND FUNCTION.

THE nervous system influences the nutrition and functional activity of its own tissues, and of the tissues and organs generally, in various ways. First, the so-called influence of the mind on the body is due practically to the direct action of certain encephalic centres subservient to thought and feeling upon other encephalic and special centres, and through these upon tissues and organs. Secondly, the influence of the body on the mind is due practically to the reverse influence of afferent nerves, tissues, and organs upon certain special and encephalic centres, and through these upon the cerebro-mental organs. Thirdly, sympathies of organs as to function and nutrition are due to the action of organs and tissues upon certain nerve-centres, and through these centres upon other tissues and organs. An example of this kind is the sympathy between the uterus and the mammae. When motion and sensation accompany this class of sympathies, they are termed diastaltic and reflex actions—as, e.g., vomiting during pregnancy. Fourthly, the motor centres act directly upon the motor structures, whether they be voluntary, involuntary, or vascular (vaso-motor), and so regulate motion of limbs and organs and the distribution of the blood. And, fifthly, the system of motor centres regulates the processes of secretion and nutrition, the temperature of the tissues, and those fundamental processes included under the term *eremacausis*, in which chemical affinity plays so important a part. For about three centuries, scientific and clinical research has been directed to the elucidation of these points, with more or less clearness of perception as to their bearings on each other, but very often with only a dim knowledge of the true relations of things. We have the same difficulties to overcome now as were encountered formerly; so that a history of the methods hitherto followed, and a note of the causes of failure, will help us to a better plan and greater success.

Very soon after the revival of letters in the fifteenth and sixteenth centuries, the advances made in human anatomy led the way to a clear perception of the fact that the nerves and nerve-centres had a direct influence upon the nutrition of tissues, and on functional activity generally. A learned lady named Oliva Sambuco (*Docta Mulier*, Haller, *Element. Physiol.*, tom. iv, p. 404) seems to have been amongst the earliest to attempt an explanation of it. She looked upon the body of man as a tree having its roots in the brains, where a juice, termed *succus alibilis*, was taken up, and diffused thence throughout the body, as well for nutrition as for emotion and sensation. As medical science advanced, the nervous juice or *succus* became a *spiritus*; but the theories of the "animal spirits" did not differ fundamentally from that of a juice. The brains were still considered the source of the influence which modified nutrition, and the nerves the channel. Speculation, clinical observation, and experimental and anatomical research, were all industriously used to unravel the mystery, and essays and treatises followed each other rapidly during the whole of the last century. Voss, in his tract, *De Nutritione Imprimis Nervosa*, 1789, gives a good critical summary of all that was known physiologically up to that date. The hypothesis of animal spirits had vigorous opponents, especially towards the close of the century, when the phenomena of electricity and galvanism began to be more carefully investigated; and an antagonistic theory was advocated—viz., that the nerves were solid tense cords, and conducted vibrations, and not a fluid. Thaer of Göttingen, in his treatise *De Actione Systematis Nervosi in Febrilibus*, discusses exhaustively the neurology of fever, both physiologically and pathologically. It is a question of perennial interest; and it will perhaps surprise many to be informed that all the chief facts of modern vaso-motor physiology and pathology are lucidly brought under review by Thaer. Boerhaave, Swenke, and