

Thus, in their two somewhat analogous Cases, VIII. and IX. of myelitis dependent or spinal caries, with various trophic lesions in the last days of life, there were found well-marked changes in the posterior roots but none in the anterior roots of those nerves whose peripheries were diseased. How a lesion of the cord can exercise an influence on the periphery of nerves, and yet spare the trunks of these nerves, it is not easy to explain. One might assume that the degeneration spread continuously from centre to periphery, but the facts do not warrant this conclusion; and the authors are disposed to think that central lesion somehow predisposes to, but is not an immediate cause of, the peripheral neuritis which may arise in the course of disease of the central nervous system. The central lesion, on this hypothesis, so modifies the peripheral nutrition, that inflammatory or degenerative changes in the nerves are liable to arise from some accidental cause, such as undue pressure or other trifling form of injury. Be that however as it may, there is a radical difference between the centripetal march of a peripheral neuritis arising in the course of cerebral or spinal cord disease, and those centrifugal, or true Wallerian degenerations, set up by transverse section of nerve-trunks. That non-traumatic peripheral neuritis is a by no means uncommon affection the authors feel assured, since in a very short space of time, and with no great abundance of material, they have found no fewer than nine examples. They point out that the naked-eye appearances of the nerves are wholly insufficient to tell us whether a nerve is diseased or not, for these are usually normal, even when the microscope may reveal extensive pathological changes. And these changes essentially affect the ultimate nerve elements themselves, and only secondarily and at a much later date do they implicate the connective tissue. Following a variable course, unlike that described by Waller, the degeneration may amount to almost complete atrophy in the course of a few hours or days; and while no continuous connection can be traced between central nerve-lesion and peripheral disease, the neuritis beginning at the periphery seems to follow a truly centripetal march. Such are the main conclusions in this important contribution which deserves the careful study of all who are interested in the diseases, and the ætiology of the diseases, of the nervous system.

Déjérine on the Peripheral Nerve Lesions of Ataxia and on Peripheral Nervo-Tabes. (*Comptes Rendus*, 1883.)—This is a further and most important contribution, by an observer whose

researches in the same direction are already widely known, towards a fuller appreciation of the changes met with in the peripheral nerves in the course of tabes dorsalis. Struck by the fact that although defects in sensation had been in several cases very various, the cord lesion was found in each to be the same, the author was led to make more careful examination of the cutaneous nerves, and the paper before us is devoted to an extended record of these two cases with complete clinical history and post-mortem examination. Both were well-marked instances of the disease, with ataxy, abolition of tendon reflexes, crises, and lightning pains, and in addition thereto were even definite areas of anæsthesia and analgesia of the trunk and limbs. The usual central changes were found, and microscopical examination of the cutaneous nerves led further to the discovery of grave alterations therein in the regions of impaired sensation. Thus in the first case we read that the nerve trunks presented exactly those appearances which are ordinarily seen some months after section, very few indeed of the nerve fibres having the normal physiological qualities. In the second case, that of a woman aged 55 who had pronounced anæsthesia of the legs, the cutaneous nerves showed extensive degeneration indicative of an essential parenchymatous neuritis. The anterior roots were perfectly healthy, but the posterior roots between their ganglia and the cord were markedly altered. Below the ganglia, however, that is, between them and the point of coalescence of the anterior and posterior elements of the mixed nerve, no such changes were to be found. And the ganglia themselves were also healthy, an observation on which M. Déjérine lays stress as an indication that the peripheral changes of the nerves were not the result of any morbid condition of their trophic centres. The author enters into a full discussion upon the nature of these peripheral lesions, combating the view that they are in any way allied to the changes seen in the optic nerves, and coming rather to the conclusion that they are the result of a true peripheral neuritis, starting and developing like the medullary lesions quite independently, and showing no connection therewith, either as cause or effect. Peripheral lesions are daily becoming more known, and although experimentally speaking true Wallerian degeneration has an existence beyond all dispute, it is none the less true that the cutaneous nerves may show serious degeneration without any central change, the known examples thereof becoming rapidly more numerous as observation is more frequently directed to their examination. In the present state of our knowledge it is

impossible to speak with any degree of certainty as to the mode of origin of peripheral neuritis, or as to the precise influence it has in giving rise to some of the symptoms of tabes dorsalis, the retardation of, for instance, sensory impressions, the incoordination, &c., but there can be little doubt that it does play an important part in the disturbances of sensation which are so common, though so variable, in the disease. And confirming and strengthening these conclusions are the facts recorded in a later and most interesting communication from M. Déjérine on two cases of "peripheral nervo-tabes," in which there were many of the symptoms of locomotor ataxy ('*La France Médicale*,' 30th of October, 1883, No. 31), pains, incoordination, abolition of knee-jerk, anæsthesia, analgesia, and retardation of perceptions, where post-mortem no central lesions whatever could be found, the cutaneous nerves alone showing disease, having in fact undergone extreme degenerative changes, the result of peripheral neuritis. These cases are now only briefly recorded, for M. Déjérine intends to bring them forward in greater detail in a work on which he is at present engaged, and which will be looked forward to with much interest. He has found nothing like them in medical literature, and he places them on record with the object of showing how in some cases locomotor ataxy may exist independently of lesion in the spinal cord, and of suggesting for them the name, "*Nervo-tabes périphérique*," in contradistinction to that of "*Tabes médullaire*."

Johnson on Nerve-suture and Nerve-transplantation. (*Nordiskt Medicinskt Arkiv*, Band xiv. No. 27, p. 1.)—This is a contribution to the study of nerve-suture, both from clinical and experimental observation. The fifty-two cases collected by the author from various sources, and arranged in an admirable table, speak very forcibly of the benefit usually derived from the suture of divided nerves. M. Johnson has himself conducted a large number of experiments in the laboratory of the school of medicine at Stockholm, both on nerve-suture and nerve-transplantation, his observation being chiefly directed to a knowledge of the time when conductivity was re-established after the operation. This varied in different animals, being found on the 40th day in rabbits, on the 31st in dogs, and the 25th in fowls. It was not, however, until the 60th day that conductivity was restored after simple division of the sciatic in rabbits, and when no suture was applied. This was tested in each instance by a weak faradic current, or by some mechanical irritation, applied above the cicatrix. Microscopical