(miliary gummata of the meninges, of the vessels of the cord). 4. The alterations of the nervous parenchyma, of the essential elements, and of the neuroglia are secondary; they may result from imperfect nutrition on account of the vascular lesions of the cord and of the nourishing membrane, or from an invasion of the medullary parenchyma by the specific infiltration. The first is the more important cause. 5. According to the intensity, the distribution, and the rapidity of evolution of the primary lesions, the anæmic necrosis of the nervous tissue appears abruptly as a transverse softening, which may be located at different points of the cord or predominate in one or the other vascular department; or else it appears slowly, and then the destruction is accompanied by a process of substitutive reaction of the neuroglia, which replaces the destroyed elements. This period of substitution is favored by the partial return of the circulation (collateral circulation, development of the vasa vasorum, formation of new capillaries in the obliterated vessels), and terminates in the neuroglia sclerosis. The connective tissue which enters the cord with the vessels is also thickened. 6. Although the necrobiotic lesions followed by selerosis constitute the principal alteration, there are certain medullary and especially radicular changes, which result from the invasion of the nervous tissue by an infiltration extending from a point in the meninges or from a perivascular sheath. This process can in certain cases assume a considerable importance. 7. While the lesions preserve the same characters, they may vary in their distribution. They are generally diffuse, but they sometimes assume the aspect of a transverse lesion, more or less intense, more or less limited, and located at different heights of the cord. They can be distributed more irregularly in a considerable extent of the cord. In every case they are more marked in the marginal zone. The dorsal location is the most frequent. Be the lesions confluent or be they disseminated, the result is always the same, and they produce the effect of a transverse lesion accompanied by a secondary degeneration ascending and descending. The lesions involve especially the territory of the postero-lateral spinal vascular system. They may predominate in certain regions of the cord—the lateral columns, the posterior columns, the gray substance of the anterior horns—and thus simulate certain systemic affections. 8. The ordinary clinical evolution is the following: At the period of formation of the primary vascular lesions and of those of the meninges, there are diffuse premonitory phenomena. At the period of softening and of degeneration of the nervous elements there is an attack of paraplegia, followed by paralytic phenomena and grave trophic troubles. At the period of sclerosis there is the chronic spastic paraplegia. The abrupt onset can be manifested without being preceded by a prodromic phase, or in other cases the spastic paraplegia comes slowly without passing through the acute stage. 9. Death may occur either in the first period of the affection from the localization or extent of the lesions, or more slowly from the progress of the affection, or from a complication. The ordinary termination of the affection is a spastic paraplegia persisting in a chronic state after an amelioration more or less marked. The complete recovery is possible only in certain conditions, when the primary vascular and meningitic lesions have been arrested before the final destruction of the nervous parenchyma. The reorganization of the necrosed nervous tissue, if it is possible, is manifested only in a limited degree. 10. In certain conditions the primary inflammation is accentuated in the meninges, producing a meningitis or a pachymeningitis, or else it assumes the form of a circumscribed gummatous neoplasm. 11. The iodo-mercurial treatment is demanded at the appearance of the first symptoms. It acts only on the primary inflammatory productions and is without influence on the necrobiotic lesions once established. 12. The medullary syphilis is always a serious affection. Death may intervene in spite of treatment, especially in the acute forms. Outside of certain rare fortunate cases in which complete recovery is obtained, the amelioration never goes beyond a certain limit, which is fixed, on account of an incurable sclerotic cicatrix of the cord.
