

ing bulbar paralysis in his case, and is the beginning of a series of symptoms that will before very long lead to a fatal ending. In the patient before you no such complication exists. In all the cases of the juvenile form of progressive muscular atrophy described up to the present, no such complication has existed. Secondary sclerosis of the pyramidal columns is not infrequent as a result of the changes that take place in the spinal form. It does not occur in the juvenile form. When we come to discuss the pathology of the disease, it will then be clear to you why these complications are so frequently present in the one case and never present in the other. Another marked point of difference between these two forms of atrophy is the fact that one is much more amenable to treatment than the other, the juvenile form being much more likely to have a favorable ending than the spinal.

They differ also in their pathology. In speaking last week of the appearances found post mortem in the spinal variety of the disease, I mentioned that the essential change was a slowly progressive obliteration of the multipolar cells in the anterior horns of grey matter of the spinal cord. The local muscular changes were simple atrophy of the muscular fibres. There is no increase of connective tissue, no deposition of fat, and no hypertrophy of the muscular fibres. Now in the juvenile form the changes are wholly seated in the muscles. The multipolar cells of the anterior horns of grey matter remain free, as do also the peripheral nerves.