

We have also very pronounced vertigo in lesions of the pons Varolii, the cerebral peduncles and corpora quadrigemini. Here we nearly always have diplopia which would of itself account for the vertigo but we often find pronounced vertigo here when diplopia is absent.

Besides these distinctly localized inter-cranial causes of vertigo we often find a lesion of the cerebrum producing it.

There are two lesions of the spinal cord in which we may have vertigo, viz: locomotor ataxia and multiple sclerosis of the cord.

Stomachal vertigo was first described by Trousseau, and in its severity and alarming nature resembles Ménière's disease. The patient who has impaired digestion eats a hearty meal of an indigestible nature and in an hour or so is subjected to some severe mental or bodily excitement. He becomes dizzy, reels, falls down. He seems to himself to be turning over in a perplexing way or to have currents which are flowing in all directions in his head. Surrounding objects also appear to be moving about in a mysterious way. He may or may not lose consciousness. After a while vomiting takes place or diarrhoea sets in and he recovers as suddenly as the attack set in.

Here the non-impairment of bony conduction and the absence of deafness and tinnitus aurium differentiate from hæmorrhage into the labyrinth.

Among the most common of transient vertigoes we may mention those due to such toxic agents as alcohol and tobacco. An overdose of belladonna, lobelia, hyoseyamus, and veratrum viridi may produce vertigo. Large doses of quinine often produce vertigo, but this is not due to any toxic properties, but due to the hyperæmia of the labyrinth or the minute hæmorrhages produced in the internal ear. The vertigo which we have in fevers and la grippe are no doubt toxic in their nature, due to the poisoned blood acting directly on the nerve centres.

We have many cases of vertigo which we cannot explain, except by saying they are reflex in their nature. The initiative may be situated in any part of the body. As an example of this variety, we may mention the well marked vertigo which often results from presence of worms in the alimentary canal.

There are still other forms of vertigo which we will only mention, but which must be borne in mind—the vertigo of old persons affected with arterio-sclerosis; the vertigo which persists often from sun-stroke; the vertigo which attends severe attacks of hemicrania; the vertigo which often comes in gouty patients just previous to the attack.

#### DISCUSSION.

Dr. T. Walker: Dr. McCully's paper is admirable. One kind of vertigo in old people, where the arteries are rigid and the heart weak.

The President: Vertigo I have seen due to a reflex cause as mentioned by Dr. McCully, as, for instance, worms in children.

Dr. McCully: Some causes I may have omitted in order to keep paper in the proper limit of time. In arterio-sclerosis I know vertigo occurs and also in migraine and in gout.