

There is a prevalent idea and evidently a mistaken one, that metastatic orchitis is due to exposure to cold or wet.

In cases 1, 3 and 9 the patients were seen the very day the mumps first appeared and were ordered to bed. There certainly was no exposure in these three, and there was no history of any in the other cases.

Two of these patients became very much alarmed when the orchitis began. On enquiry one told me he knew a man from whom the testicle had been removed when the mumps 'went down,' as he termed it, and the other patient had always believed from what he had heard that the testicle had to be removed under the same circumstances. Since receiving that information I have found out another person who refused, (within 7 years,) to allow a physician to remove his testicle. Considering that mumps is a general disease tending naturally to recovery, this was rather a curious and serious method of treatment.

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REMARKS ON HEART MURMURS.

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A DISTINCT thrill on palpation at the apex of the heart, preceding the apex beat, is regarded as an indication of mitral stenosis. I have noticed a similar thrill in several cases of pure aortic regurgitation. The following are from notes of a post mortem examination: "Found one aortic valve ruptured, and one much thickened by deposit, no disease of the mitral, kidneys much enlarged, liver normal, heart hypertrophied." "During life recognized aortic regurgitation, but was doubtful of condition of mitral valve on account of a well marked thrill coming up to the apex beat, and a corresponding murmur which certainly preceded the apex beat and may have been the altered second sound, (the heart was beating fast.) There was no history of syphilis or rheumatism, mother died of heart disease, urine contained considerable albumen. Age about 35."

"Dr. Flint, of New York, maintains that a pre-systolic murmur may sometimes be heard in cases of aortic regurgitation. He believes it is due to the vibration of the mitral segments, even when the valve is inactive, owing to the over engorgement of the ventricle from reflux of blood into it from the aorta." This may have been the explanation of the murmur in this case, although I concluded after the autopsy and taking into consideration the rapidity of the heart, that a mistake had been made in regarding a regurgitant murmur heard at the apex as pre-systolic.

It would seem reasonable to expect that a thrill would be produced in a number of such cases by the rush of blood over the distorted aortic valves and with it conducted toward the apex. In my second case the thrill, which might have led one to suspect mitral stenosis, was supported by a pulse tracing supposed to point in the same direction; a "post mortem" examination however, proved the diagnosis of aortic disease correct, the mitral orifice being normal while the aortic valves were greatly deformed and encrusted with vegetation. In another patient the thrill was observed as before, very distinct, limited to the apex area, and preceding the apex beat. This patient had no other sign of mitral disease, but the aortic regurgitation was undoubted. In

both this case and the last ones the aortic murmur was very plainly heard at the apex, and suggested to me the above explanation of the thrill.

Sounds produced in the heart are not usually included among the causes of tinnitus.

A patient, very pale, complained of pulsating tinnitus like the puffing of an engine, in the right ear. It could be stopped completely by pressure anywhere over the right carotid artery. A loud systolic murmur could be heard over any portion of the same vessel down to the aortic valve and also in the extrapulmonary region. With the help of Bland's pills the patient improved rapidly. The aortic murmur disappeared and with it the tinnitus, which had lasted 18 months.

CAUSATIVE INFLUENCE OF HEREDITY IN PROGRESSIVE MUSCULAR ATROPHY.

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THE object of my paper is to strengthen the evidence relative to the causative influence of heredity in Progressive Muscular Atrophy or Wasting Palsy.

That heredity plays an important part, seems well determined by numerous observations, notably by those of Friedrich, Roberts, Trousseau, Hammond, Osler and Naunyn.

The evidence which I am about to present is so exceptionally strong in its nature that it affords sufficient excuse for travelling over already well beaten ground.

In 1880 I saw Mrs. H—, who presented a group of symptoms new to me. I sought the advice of the Hon. Dr. Parker who, after a thorough examination, declared the case to be one of Progressive Muscular Atrophy, and that all the characteristic features of the disease were present. Shortly after the late Dr. Edwin Clay saw the patient and elicited the fact that she was a blood relative of a number of persons he had seen who died from the same disease. He further informed me that his son, Dr. H. P. Clay, had now under his care, one, if not two members of the same family suffering from the disease. I had the opportunity of seeing the two cases, and thus obtaining a large amount of information respecting the family.

At a later date several members of this family were seen by both the Hon. Dr. Parker and myself.

I also obtained information of considerable value from Dr. R. Hunter Crawford of this city.

After investigating the question closely and for a prolonged period, I am in a position to present the following facts, all carefully verified. They are concisely shown in diagrammatic form on pages 84, 85, the descendants of two brothers being traced out separately.

A. M—, grandfather of my first case, died of P. M. A. at the age of 53, after a years' illness. The atrophy commenced in the right leg and extended to the right arm, left leg, and left arm, in the order mentioned. Death occurred somewhat suddenly from suffocation, no information could be obtained about his parents, but there is a tradition that a strange disease has been long existent in the family.

He had four brothers and one sister. No information could be obtained about the sisters' descendants. Three of the brothers and their descendants have shown no indication the disease.

The other brother, D. M—, will be referred to presently. A. M— had three sons and eight daughters.