

hæmorrhages, developing itself in early childhood, and accompanied by a painful swelling or pseudo-rheumatic pains of the joints is diagnostic of hæmophilia. Though not so dangerous as hæmorrhages these joint complications are far more distressing and dreaded by the sufferer.

Two forms of this affection are noticed : a painful swelling of the large joints, generally the knee, and, secondly pain in the joints and limbs of a rheumatic character unaccompanied by swelling.

In the first variety the affected joint becomes enlarged, painful, and filled with fluid, the patient is feverish, the swelling is sometimes indistinctly fluctuating, and not attended with redness of the skin—or, as stated in Holmes' System of Surgery, "not unfrequently pain will come on in a joint, particularly in spring-time or harvest, and after passing irregularly from one joint to another will settle in the knee, and be followed by a painless enlargement of that joint, not unlike a white swelling."

This state of the joints may last a few days or months : frequently the swelling comes on suddenly, the joint becoming greatly enlarged, and occasionally almost as suddenly diminishes in size, in which case it not unfrequently reappears in another joint, or is succeeded by, or alternates with hæmorrhage. There is always great liability to relapse, so that sometimes the patient is never free from this unpleasant state of affairs. The affected joints may recover with or without permanent injury.

In the second variety, the pain may be very severe, may also alternate with or be premonitory of hemorrhages : this as well as the first variety are frequently effected and induced by exposure to cold and damp.

The post-mortem appearances found on examining the body of a bleeder are generally of a negative character, throwing little light on the pathology of the disease ; it is said the internal organs, the heart and vessels, are frequently found healthy, that the rigor mortis is strongly marked, and that putridity comes on quickly.

I am unable to find that any observer has recorded the pathological condition of the joints, though Dr. Legg in an Addendum to his work, mentions that some important observations on this point have appeared in a French Medical Journal.* Unfortunately I have not been able to see the article referred to.

Although I have stated the heart and vessels are frequently found healthy, still abnormal conditions of these structures are occasionally found, and

when they do exist are said to have an appearance conveying the impression of imperfect or arrested development.

For instance, the heart is sometimes seen to have the rounded form of the foetal heart, its walls in part or in whole, thin and deficient in muscular fibre ; the septum between the auricles and ventricles, particularly the former, thin and membranous ; in one instance the foramen ovale was patent ; the coats of the arteries very elastic, thin, almost transparent and deficient in muscular fibres.

Of the numerous post-mortem examinations that are recorded, in only 21 is it stated that particular attention was directed to the heart and vessels, Of these 21 nothing abnormal was discovered in 8 ; in 5 there was marked thinness of the arterial coats ; of the remaining 8 the condition was severally as follows : in the first thinness of the pulmonary artery with hypertrophy of the heart. 2nd. Thinness of the pulmonary artery with a like condition of the ventricular septum. 3d. Hypertrophy of the heart. 4th. Hypertrophy of the heart with thinness of the walls of the right heart, and a cartilaginous condition of the valves of the left side. 5th. Hypertrophy of the left heart. 6th. Thinness of right heart. 7th. Thinness of auricular septum and patency of the foramen ovale. 8th. Fatty degeneration of heart and aorta. Verchow and Morel made microscopic examinations in two of the above cases, without finding any abnormal condition of the arteries or capillaries.

Of the five cases in which the arteries were found to be thin, their appearance is described as resembling veins more than arteries, their walls being thin, almost transparent, and deficient in muscular fibres.

The numerous theories which have been advanced, as to the nature and cause of the disease, may be embraced under the following heads : I. That hæmophilia is an anomalous form of some other disease, as gout or cyanosis. II. Some alteration of the composition of the blood. III. An abnormal condition of the vessels. IV. Disturbed innervation of the vessels, and, according to Grandidier, a combination of the 2nd and 3rd.*

As to the first I have only to say it appears to me to be unsatisfactory, an attempt to get out of a difficulty, and in doing so get into another.

The second, that of some alteration of the blood, used to be a favourite one ; it was thought the blood was unnaturally fluid, this fluidity being variously

* *Lyon Medical*, Dec. 21, 1874.

*Grandidier, "Die Hämophilie."