

PHYSIOLOGY AND MEDICINE.

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(Continued from page 223.)

DISEASES OF THE HEART—continued.

Pericarditis.—This affection occurs most commonly in the course of rheumatic fever, disease of the kidney and pyæmia, beginning sometimes very insidiously. It is a serious disease, attended with fever, pain over the region of the heart, a feeble pulse, and dyspnoea. The patient looks anxious and ill, the action of the heart being interfered with. The patients should not be allowed to exert themselves in any way, even to sit up in bed, as a fatal faint may result. Leeches applied over the region of the heart have been found to give great relief; counter-irritation, as by blisters, is also useful. Sometimes so much fluid accumulates in the pericardial cavity that the heart is seriously embarrassed and the operation of "tapping" has to be performed.

The etiology or causation of pericarditis and valvular heart disease (endocarditis) in India differs considerably from that in temperate climates. The above remarks on causation refer to temperate climates. In India, pneumonia is the commonest cause both of pericarditis and of acute valvular disease; syphilis is the commonest cause of chronic valvular disease.

Angina pectoris.—This is a painful and dangerous symptom occurring in some affections of the heart or of that part of the aorta adjoining the heart. In the region of the heart there is a sudden spasm of pain, which radiates down the left arm. This pain is accompanied with dyspnoea—the face being more usually pale than livid and covered with sweat—and a sense of approaching death. The attack soon passes off or ends in death. The exciting causes are exertion and mental shock, so these have to be guarded against. The chief medical agent to ward off or treat an attack is nitrite of amyl which is usually put up in glass capsules. A glass capsule containing five or ten minims of nitrite of amyl is broken between the folds of a pocket-handkerchief and the contents are inhaled by the patient while in the recumbent position.

Degeneration of the muscular wall of the heart.—Degeneration of the muscle of the heart may be of a fatty or fibrous nature, and is due most commonly to syphilis, alcohol or diseases associated with severe anæmia. At a late stage of this condition lung complications or dropsy often appear; and sudden death is not uncommon.

Dilatation of the heart.—This may exist apart from any valvular disease; it is a common sequel of bronchitis and emphysema. Besides lung complications, dropsy often appears in the late stages of this condition. Sudden death is not uncommon.

Congenital malformations of the heart.—The patient's heart is imperfect from birth, a common form of malformation being that the right and left sides of the heart are incompletely separated. Individuals suffering from this condition are very susceptible to cold, and require to be well clad. Most of them die in childhood. They suffer from lividity (blueness) and coldness of the ears, lips and extremities; also from dyspnoea. The fingers and toes are often "clubbed," that is, the tips of the fingers and toes are rounded and longer than normal.

In the treatment of patients suffering from disease of the heart, an excess of liquid nourishment is usually contra-indicated.

DISEASES OF ARTERIES.

Thickening and diseases of arteries are signs of commencing decay of the body. This decay begins at an earlier age in some individuals and families than in others: "a man is as old as his arteries."

Aneurism.—By this is meant a localised bulging in the course of an artery due to weakening and stretching of its coats. Disease or injury weakens the walls of the blood vessel and then bulging occurs. Naturally, aneurism is more liable to occur where arteries are least supported by surrounding structures and where exposed to strains, as in the arch of the aorta. Once started, an aneurism is apt to increase in size rapidly, as, according to a well-known physical fact, the greater the diameter of the cavity the less the internal force that is required to burst the wall. An aneurismal tumour therefore continually increases in size, and, if situated near the surface, exhibits *expansile* pulsation.

Aneurism of the aorta.—This is a grave condition, which occurs most frequently in syphilitic patients. Sometimes it exists without exhibiting any signs or symptoms; but generally it is attended with quite a variety of these, due to pressure on surrounding structures—pain, difficulty in swallowing and breathing, loss of voice, œdematous swelling of arm and neck, etc. Sudden death may occur from rupture of the aneurismal wall and consequent hæmorrhage. Treatment is palliative only to lessen the amount of blood in the body and to reduce its force. These objects are generally attained by rest in bed and restricted diet, especially the liquid part.

DISEASES OF VEINS.

By *phlebitis* is meant inflammation of a vein. The condition may be *simple* and due to injury or *suppurative* and due to infection. The latter affection is always dangerous. The mildest form of phlebitis may, however, be serious if the blood inside the vein clots (*thrombosis*). In thrombosis the vein becomes swollen and cord-like, and the chief danger arises from a piece of clotted blood being carried off into the general circulation and ultimately blocking an artery in some important organ of the body (*embolism*). The treatment of thrombosis is absolute rest in order to diminish the risk of embolism.

Varicose veins.—In this condition the veins are irregularly enlarged: they become not only stretched laterally, but also lengthened and twisted just as occurs when a rubber tube is over-distended. Sometimes there occurs a "varicose ulcer" which is very resistant to treatment. A vein may also burst and fatal hæmorrhage result.

DISEASES OF THE BLOOD.

Anæmia.—By this is meant impoverishment of the blood, which is either (1) diminished in quantity as from hæmorrhage, or (2) deficient in one or more of its constituents. The chief symptoms are palpitation, faintness, dyspnœa, indigestion, constipation and headache.

Hæmophilia.—This condition is probably due to some defect in the coagulation properties of the blood. Those suffering from this disability are commonly known as "bleeders," and they generally die early in life.

Christmas is Emmanuel : God, God Himself with us, and not merely His gifts ; with us though sin is in us, yes, because it is in us, cleansing us from its stains by the fire of His love and purity. God is with us, not to extinguish us, but to make us realize ourselves, to save us from being daunted and overcome by things ; God is with us, enlarging our world by making us new "creatures," and thereby He finds for us more and more in the world that has affinity with us, more and more potencies that we can use. With the sons of God it is always Christmas, and the dawning of the newest of the years.

JOHN CLIFFORD.