

OUR PRIZE COMPETITION.

STATE WHAT YOU KNOW OF THE TREATMENT AND NURSING OF CORONARY THROMBOSIS.

We have pleasure in awarding the Prize this month to Miss Winifred Moss, the Royal Infirmary, Leicester.

PRIZE PAPER.

The heart receives its blood supply by means of the coronary arteries, through which blood flows during both systole and diastole. These arteries are the first branches given off from the arch of the aorta, immediately above the semilunar valves, and they run in the auriculo-ventricular and interventricular grooves, and divide into branches, which are distributed to the fibres of the myocardium.

The amount of blood flowing through these vessels varies directly with the blood pressure in the aorta, and also the metabolic products of the activity of the heart increase the coronary flow of blood; therefore, whenever the heart does more work, the supply of blood to the myocardium is increased.

If the supply of oxygen and nutrient material to the heart becomes inadequate, the nutrition of the muscle fibres is impaired and their power of contraction diminished, and this happens in Coronary Thrombosis. The walls of the coronary vessels become sclerotic—that is, thickened and hardened—the blood pressure is high, and there is coagulation of the blood in the vessels.

This condition usually occurs in middle-aged or elderly people, often in men over sixty years of age. The onset is usually acute, with severe sternal pain, which differs from the pain of angina pectoris, as it may occur while the patient is at rest. It does not come on in spasms, but may be constant for hours and days. It may radiate to the arms and neck, or around the body. The patient is anxious, suffering severely from shock, dyspnoea is constant and severe, and there may be vomiting, cyanosis, sweating, and collapse.

These symptoms may increase and death result; or, if the patient remains at complete rest, the lesion may heal and a gradual convalescence result. This may follow thrombosis of the smaller coronary vessels.

Large doses of morphia are usually ordered—half a grain—for the relief of the pain, on which nitrites, the remedy for angina pectoris, have no effect, and the patient is ordered absolute rest for at least eight weeks, and even after a gradual convalescence is not as a rule able to do anything requiring much exertion, either mental or physical.

The rest should be absolute, in bed in the most comfortable position, according to the amount of dyspnoea present. Rest of mind and freedom from anxiety are important, although often difficult to secure. During convalescence, when there are no symptoms, as many hours as possible should be spent in bed; there should be an hour or two's rest during the day; and all exercise should be carefully supervised.

In acute conditions, the diet should be limited, especially fluids, and should be free from articles promoting flatulence or indigestion. If dropsy is present a salt-free diet may be ordered, as this enables the tissues to get rid of their excess water more easily;

this may also be helped by giving saline aperients to encourage depletion through the bowels.

These patients often complain of dyspnoea and are unable to lie down and should have plenty of pillows or a bed-rest, arranged so that in sleeping the head can be supported as it falls over. For nocturnal dyspnoea with restlessness, morphia is usually ordered. Sleep is often broken and restless and disturbed by nightmares, and sedatives such as chloral hydrate or paraldehyde may be ordered, or, if these fail, morphia is usually resorted to.

In addition to the actual rest of lying in bed, the whole body must be at rest and no organ must be working more than the barest minimum. Until the doctor gives permission, the patient should do nothing for himself; he must be washed, fed, have all articles handed to him, be forbidden to stretch or reach for anything, and be lifted on and off a bed-pan. As improvement is noticed, little effort only is allowed at first, and the pulse taken before and after each extra exertion. If the pulse does not return to its original rate within two minutes, it is considered that the effort has been too great a strain on the heart. This also applies to the effort allowed when the patient first gets up and to the effort of walking when this is allowed.

Thrombosis heals by the formation of fibrous tissue. Fibrous tissue cells are formed in the clot, these shrink, and the clot gets smaller, so that some blood passes through it; resolution gradually takes place, and the tissues return to their normal condition. This occurs in thrombosis of the smaller coronary branches. In severe cases, when larger vessels are involved, death may occur at once or in a few hours' time.

In all cases, however, the outlook in obstruction of the coronary arteries is grave and, even if an attack is recovered from, the duration of life will not be long; therefore, it is most essential that the patient should lead a peaceful, quiet life, as free as possible from mental and physical effort. The need for this must be explained to him and, as far as possible, his co-operation obtained.

HONOURABLE MENTION.

Miss Amy Phipps, Longmarton, Ashford, Middlesex, sends an admirable Paper which well deserves honourable mention. She emphasises the following nursing directions: "The patient is acutely ill and quite helpless, and must not be left. He should be placed at once on a water-bed, if the physician allows this movement, in a warm, well-ventilated and quiet room, avoiding all sudden noises, draughts, bright lights, etc. He may be unconscious and must not exert himself. Washing and changing will need two nurses, and must be performed with extreme gentleness and the minimum of movement. To this end, a flannel garment fastening at the back is useful. Acute sternal pain is generally present; flatulence, severe dyspnoea and cyanosis will be treated as they arise. The limbs must be kept warm, but their cutaneous hypersensitivity must be remembered."

QUESTION FOR NEXT MONTH.

- (a) What are the effects of applying heat to the skin and for what purposes is it used?
- (b) Enumerate the different ways in which heat may be applied and describe methods in detail.

[previous page](#)

[next page](#)