RHEUMATIC - FEVER which can be described as the greatest “killer of cardiac efficiency” is the commonest cause of heart diseases in children. If neglected and untreated, rheumatic fever can cause permanent cardiac damage. Medical statistics show that the origin of heart disease in 40 to 60 per cent children can be traced back to rheumatic fever. While there is no known vaccine to prevent heart disease, prompt treatment of certain diseases like rheumatic fever can prevent cardiac damages.

Definition

Rheumatic Fever can be defined as an acute disease characterised by fever, arthritis and special tendency to carditis. It is caused by a sensitization phenomenon following infection by a strain of haemolytic streptococci.

Causes

The precipitating causes are Haemolytic Streptococci Lancefield 'A' group organisms. Little is known about its predisposing factors, although many theories have been put forward including hereditary tendencies, physical and emotional stress, allergic conditions and poverty.

Age Group

Rheumatic fever can attack children in any age group although its incidence among children below 4 years and adults above 30 years are rare. This disease is commonly reported in tropical areas. Females are more prone to it than males, the ratio being 4 : 1.

Pathology

A layer of fibrin is formed between the pericardial layers in the early stages. Later non-suppurative inflammation is found on the myocardium and endocardium causing the normal structure of the heart to be replaced by scar tissue and in course of the time the scar tissue contracts establishing Mitral Stenosis.

Symptoms

The onset is abrupt with chill followed by rise of temperature upto 102°F. Pulse will be relatively high. Poly arthritis (inflammation of joints) with intense pain and nodules will be found in subcutaneous structure, e.g., shoulders, back of head, etc. Acid smell sweating, Scanty high coloured Urine. Disturbance of alimentary tract, e.g., anoerexia.

Investigations

Blood : Total Count. Differential Count for finding leucocytosis. E.S.R.—Usually will be raised.

H.B. Anaemia may be present.

Urine : Albumin may be found.

Sugar : Specific gravity. X-Ray Examination to find out cardiac invasion.

E. C. G. : For any pathological changes.

Treatment

Prophylactic measures : (1) No vaccines are found for preventing this fever but the early diagnosis and careful, prompt specific treatment of rheumatic fever will aid the prevention of most of the complications. (2) Any upper respiratory tract infection in children like sore throat should be treated without any neglect (3) Even after cure of rheumatic fever a course of Benzathene Penicillin 12,000,000 units once a month for 2 years is essentially indicated.

Nursing Care

Rest in bed in a well-ventilated room at least for 6 weeks. In application of all nursing measures, it is essential to bear in mind the absolute necessity of rest and it should be remembered that rest for the whole person, physical and mental, automatically provides rest for the heart also.

Position of Patient

The position adopted depends on the symptoms present and should be most comfortable to provide the greatest relief of pain. The patient should be kept adequately warm by using blankets etc. Bed cradles should be used to relieve the discomfort caused by undue weight of the bed clothes.

If the weight of the bed clothes is sufficient to cause discomfort, they should be elevated by means of a low bed cradle. Painful joints can be supported by pillows, light splinting cotton-wool bandages,

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The Patient should be washed, fed and gently levelled. His locker should be out of his reach and he should be even warned against raising his arms. As he improves, he can be gradually allowed to attend to his personal hygiene.

Sleep

Sleep is essential and nurses are required to exercise great care in obtaining the best possible conditions to secure sleep for their patients particularly with regard to maintaining their physical comfort. The correct degree of warmth, the provision of a low non-irritating light, the reassurance that someone is within call are some of the points to remember.

(Contd. on page 88)