

Endo Myocardial Fibrosis: A Mystery Disease in Tropical Region

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DESCRIPTION

Endomyocardial Fibrosis (EMF) is a type of prohibitive cardiomyopathy described by endocardial fibrosis of the right ventricle, left ventricle, or both, thus prompting ventricular obliteration and atrioventricular valves regurgitation [1]. Most of individuals who experience high bleakness and mortality are females of similar family prompting the disturbance of families and networks outline. Dietary, natural, and infectious factors appear to consolidate in vulnerable people to bring about an inflammatory process that prompts endo-myocardial harm and scar formation.

Pathophysiology

EMF is characterized by the substitution of the endocardium and myocardium by fibrous tissue, prompting a prohibitive functional state. Olsen perceived three stages of EMF. The primary stage term might arrive at five months and is described by eosinophilic infiltration of the myocardium with necrosis of the sub-endocardium; an image reliable with intense myocarditis. Myocardial association was viewed as a sign of an intense necrotic phase of the eosinophilic endomyocardial illness [2]. The subsequent stage, what begins following ten months, is the thrombotic stage, which is related with clots development and goes on for quite some time until the fibrotic stage is reached. During the fibrotic stage, the endocardium is supplanted by collagenous stringy tissue which is the primary element of EMF. Fibrosis includes the apex, ventricular walls, papillary muscles particularly the posterior papillary muscle and chordae tendinae, and spreads to overwhelm the posterior mitral valve pamphlet in left ventricular EMF. The degree of fibrosis and subtleties added that the posterior mitral cusp was completely immobilized by adherence to the endocardium of the posterior wall of the ventricle. The outcome was a stringy surface running straight down from the ventricle to the chamber where the cusp had become implanted and framed an endocardial sinewy rack. The anterior mitral valve flyer, however impacted by the endocardial thickening, stays portable making the entire valve a solitary handout valve.

Etiology

Etiology of EMF remains unclear. One possible justification for the absence of advancement is the way that most cases are not found in the intense stage, and show up at medical clinics when the underlying elements of the infection had vanished. In several associations with the disease have been ensnared, among them were ethnicity, neediness, diet, malaria, eosinophilia and infection. Patients in endemic regions experience under nutrition, furthermore, they consume cassava, which contains the earth component Cerium. It is accounted that Cerium and hypomagnesaemia in blend might induce EMF-like disease in exploratory animals. However, no comparable observing has been accounted for in humans.

It is normally found in the populace, connected with microfilaria and helminthic invasions. Eosinophils' degranulation discharges harmful cationic proteins and protein X that are delivered in the endocardium and myocardium and may results in thrombosis, fibrosis, and in the end EMF. With regards to that perception, eosinophilia has effectively been perceived as an element of the beginning phases of the disease and vanishes when chronicity is reached [3].

Some researchers made a report regarding information on the genetics and organic chemistry of Eotaxin and its receptor-CCR3 as well as molecular components and their effect on eosinophils. Eotaxin is the best in vivo chemo attractant for eosinophils and directs eosinophil movement to fringe tissue against its gradient. Further, it appears to defer eosinophil apoptosis outside blood vessels, simultaneously enacting the cells by restricting to cell surface receptors and eventually leads to eosinophil degranulation. Considering its properties and capacities, Eotaxin or its receptor might turn into a sensible future objective for the treatment of EMF with tissue eosinophilia.

On the epidemiological premise, EMF acts like a vector-transmitted disease and numerous parasites have been implicated as partners, among them was microfilaria disease described by hypereosinophilia. Schistosomiasis is accounted for to cause periportal fibrosis, pneumonic hypertension, and EMF. Malaria expected a more grounded relationship with EMF. Few researchers observed that patients with EMF have a high titer of

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Received: 16-Mar-2022, Manuscript No. ATBM-22-16276; **Editor assigned:** 18-Mar-2022, PreQC No. ATBM-22-16276 (PQ); **Reviewed:** 01-Apr-2022, QC No. ATBM-22-16276; **Revised:** 06-Apr-2022, Manuscript No. ATBM-22-16276 (R); **Published:** 13-Apr-2022, DOI: 10.35248/2379-1764.22.10.344

Citation: Dhar I (2022) Endo Myocardial Fibrosis: A Mystery Disease in Tropical Region. *Adv Tech Biol Med.* 10: 344.

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cardiac myosin antibodies (IgM) that corresponds well with a rising titer of malaria antibodies, subsequently supporting the role of malaria in the pathogenesis of EMF. Apparently the genuine reason has not been characterized and that more exploration is expected to unravel the reason for this strange disease [4].

CONCLUSION

EMF is a strange disease whose etiology is disentangling. The affected people are generally youthful females and kids who surrender to high rate of morbidity, and mortality from cardiovascular breakdown. Clinical and careful treatment is both rehearsed with results shifting from temporary relief of side effects to a medical procedure with high death rates. EMF is common in low-pay areas of the reality where it isn't viewed as wellbeing need. It will, hence, need a ton of promotion and

obligation to present it to the consideration of wellbeing specialists. EMF in the Primary Health Care Program which advocates that essential consideration administrations are accessible, reasonable, and gave similarly to all people regardless of their orientation, age, identity or location.

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