

Marfan Syndrome

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Description

- A hereditary disorder of the connective tissue that maintains the structure of the body and support internal organs. It affects many parts of the body including heart, blood vessels, bones, joints, eyes. Typical characteristics;
- Being tall
- Abnormally long and slender limbs, finger and toes
- Heart defects
- Lens dislocation
- Loose joints
- Crowded teeth
- Scoliosis or kyphosis

Inheritance

- Children usually inherit from one of the parents(in 75% of the cases).It is an autosomal dominant disease which means one copy of altered gene in each cell is sufficient to cause the disorder . Mutation in FBN1 gene which lead to defective fibrilin 1 protein.Reduce amount of funtional fibrilin 1 to form microfibrils(thread like filaments).
- At least 25% of the cases result from new mutation in FBN1 gene.
- Frequency;1 in 5000 worldwide

Diagnosing

- It can be difficult as the symptoms vary from person to person. Symptoms do not always develop during childhood. Genetic testing is used to confirm the test, but it is an expensive process. Physical examination and detailed patient history and family history usually done.
- Genetic testing:
 - Molecular: study single genes
 - Chromosomal: analyze whole chromosome
 - Biochemical: study amount or activity level of proteins

Treatment

- There is no cure for the disease. Symptomatic treatment and reducing risk of complication can be done, but it varies depending on the severity. A serious complication is when heart and aorta are affected but other disorders caused by the disease should be treated as well to prevent further complications. A regular check ups with specialists are essential. Physiotherapy and psychotherapy are important to achieve good results.

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