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**Scoliosis: Review of Diagnosis and Treatment****Ashutosh Kumar<sup>1</sup>, Alok Kumar<sup>2</sup>, Pooja Sharma<sup>3</sup>**

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**Abstract**

Scoliosis is a spinal deformity consisting of lateral curvature and rotation of the vertebrae. The causes of scoliosis vary and are classified broadly as congenital, neuromuscular, syndrome-related, idiopathic and spinal curvature due to secondary reasons. The majority of scoliosis cases encountered by the general practitioner will be idiopathic. The natural history relates to the etiology and age at presentation, and usually dictates the treatment. However, it is the patient's history, physical examination and radiographs that are critical in the initial evaluation of scoliosis, and in determining which patients need additional considerations. Scoliosis with a primary diagnosis (nonidiopathic) must be recognized by the physician to identify the causes, which may require intervention. Patients with congenital scoliosis must be evaluated for cardiac and renal abnormalities. School screening for scoliosis is controversial and is falling out of favour. The treatment for idiopathic scoliosis is based on age, curve magnitude and risk of progression, and includes observation, orthotic management and surgical correction with fusion. A child should be referred to a specialist if the curve is greater than 10° in a patient younger than 10 years of age, is greater than 20° in a patient 10 year of age or older, has atypical features or is associated with back pain or neurological abnormalities.

There is major difference between scoliosis and scoliotic list: Scoliotic list is acknowledged as a non-structural scoliosis secondary to nerve root irritation. Therefore, once the offending painful stimulus is removed, sciatic scoliotic list should be improved. Typically, for scoliosis to be considered, there should be at least 10° of spinal angulation on the posterior-anterior radiograph associated with vertebral rotation (1). The causes of scoliosis vary and are classified broadly as congenital, neuromuscular, syndrome-related, idiopathic and spinal curvature due to secondary reasons. Congenital scoliosis is due to a vertebral abnormality causing the mechanical deviation of the normal spinal alignment. Scoliosis can be due to neurological conditions (eg, cerebral palsy or paralysis), muscular abnormalities (eg, Duchenne muscular dystrophy) or other syndromes (eg, Marfan syndrome and neurofibromatosis). Occasionally, significant lateral deviation of the spine can occur with little or no rotation of the spine and without bony abnormalities. In these cases, the 'scoliosis' can be the result of pain, spinal cord abnormalities, tumours (both intraspinal and extraspinal) and infection. The majority of scoliosis cases encountered by the general practitioner will be without an obvious cause (idiopathic), and will be the main focus of the present review. The natural history relates to the etiology and age at presentation, and usually dictates the treatment. However, it is the patient's history, physical examination and radiographs that are critical in the initial evaluation of scoliosis and in determining which patients need additional evaluation and consideration.

**Keywords:** Spinal deformity, idiopathic, 10° of spinal angulation, mechanical deviations.