

Defining of the Shape of the Spine Using Moiré Method in Case of Patients with Scheuermann Disease

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Abstract : Nowadays spinal deformities are very frequent problems among teenagers. Scheuermann disease is a one dimensional deformity of the spine, but it has prevalence over 11% of the children. A traditional technology, the moiré method was used by us for screening and diagnosing this type of spinal deformity. A LabVIEW program has been developed to evaluate the moiré pictures of patients with Scheuermann disease. Two different solutions were tested in this computer program, the extreme and the inflexion point calculation methods. Effects using these methods were compared and according to the results both solutions seemed to be appropriate. Statistical results showed better efficiency in case of the extreme search method where the average difference was only 6,09°.

Keywords : spinal deformity, picture evaluation, Moiré method, Scheuermann disease, curve detection, Moiré topography

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