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THE PRACTICAL USE OF SURFACE TOPOGRAPHY: FOLLOWING UP PATIENTS WITH SCHEUERMANN'S DISEASE

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Purpose. The purpose of this study was to answer the question of whether a course of in-patient rehabilitation of 4-6 weeks results in a significant postural improvement in patients with a structural kyphosis. Since all clinical measuring parameters are liable to high margins of error and measuring the surface with the formetric system has shown high reliability in previous studies, this system has been used to evaluate the results of rehabilitation in patients with Scheuermann's disease.

"...measuring the surface with the formetric system has shown high reliability..."

Materials and method. A pre-/post-interventional study was undertaken including only patients ($n = 136$) with Scheuermann's kyphosis and a thoracic curve pattern. Sixty-two female patients with an average age of 19 years and 74 male patients of average age 20 years were diagnosed with the Formetric system before an in-patient rehabilitation programme of 4-6 weeks. For this study, the maximal kyphotic angle was evaluated.

Results. The average kyphotic angle as measured by the surface topography system before inpatient rehabilitation was 60.7° (SD 11.2) and after 54.9° (SD 12.1) for the whole sample of 136 patients. The improve-

ments were highly significant in the t-test. In the cases of the female patients, the maximal kyphotic angle decreased from 62° to nearly 54° ; in the cases of the male patients it had decreased from 60° to nearly 55° by the end of the programme.

Discussion. After the in-patient treatment, the kyphotic angle decreased very significantly. The range of change was far greater than the margin of error and, thus, the following conclusion may be reached: In-patient rehabilitation with an intensive programme of treatment may result in a correction of structural kyphoses in which there are clear signs of Scheuermann's disease. Consequently in-patient rehabilitation is recommended for adolescents in cases of Scheuermann's kyphoses.

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