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Comparative Study of Cheneau Brace Vs Miami Braces Scoliosis.....

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Abstract: ***The aims of this project are to conduct a comparative study of surface X-ray angles in idiopathic scoliosis before and after treatment with the Chêneau brace. Therefore, the primary objectives of this project were to: 1) To evaluate the scoliosis by lateral deviation, rotation and trunk length before and after Cheneau brace treatment. 2) To identify the Cobb angles using the X-ray measurements and evaluate the correction of scoliosis by comparing measurements before and after treatment with the Chêneau brace. 3) To assess the efficacy of the cheneau brace. 4) To check the curve reduction & follow up procedure. 5) To evaluate the results with risk factors of progression.***

Keywords: Cheneau Brace, Miami Brace Scoliosis

1. Result

The overall correction of the curvature in the cheneau brace is apparently noticed. Unlike most braces used to treat scoliosis, the cheneau Brace offers a major advantage. Patients wear this day; night-time orthosis only sixteen hours in everyday;

Scoliosis curvature of three patient and showed improvement of and respectively. These patients have been regularly followed up and after three months the results show the reduction of curvature & restrict the progression of the scoliosis. Our results were also compared other with day time orthosis by acceptance of the patients.

- After 3 month follow-up reduction of the curvature is been achieved and progression of the curvature is restricted.

- The existing braces are constructed so that it is adjustable to curve changes of the scoliosis and to height growth and change in weight of the child. A brace is worn until skeletal maturity is reached (Risser grade 4 or 5) or until no growth has occurred for 6 months. Brace fit and curve progression are evaluated every 4 to 6 months (4). Wearing the brace for the prescribed time is difficult but is essential for any success.

- If a brace is used, an orthotist measures, facilitates and fits the patient with the device. The orthotist is responsible not only for providing the product but also for following through with the entire treatment plan. The orthotist should have knowledge of the referring physician's treatment protocol and be able to provide a full physical examination to allow the orthosis to fit correctly. The orthosis design and fit will be a key factor in patient compliance. The more streamlined and comfortable the orthosis is, the more likely it will be worn as prescribed.
- The physical therapist performs a comprehensive assessment, interprets the results, and tailors an individual exercise program best suited for the patient based on the findings. A nurse may also get involved to coordinate the treatment plans. The nurse coordinates the clinic, instructs the patient in brace application and skin care, and provides the patient with a schedule for adjusting to the brace. The nurse also provides support and information and is the patient's and family's contact for any questions or concerns. The nurse often provides written information with regard to diagnosis and treatment plan.

- The team makes the long-term management of these patients not only successful but also very rewarding. Each team member provides a great deal of emotional

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support to both the patient and family throughout the course of treatment. A highly motivated, enthusiastic team can have a very positive influence on both patients and families. Patients and their families gain knowledge and support from the professional team as well as from other children and families undergoing similar treatment.

- The education of the patient and family starts even before the initial fitting of the orthosis. There should be a complete understanding of what the patient is being treated for and what is expected of the patient and the family.

2. Conclusion

Although there are many types of braces to be used for the patient with scoliosis, they all use the same working principle – to use the orthotic device in order to obtain correction by applying forces on the sides of the body. The correction forces induce a three point force system on the spine in order to correct the lateral curves. Continued wearing of the brace will facilitate prevention of further curving of the spine.

The present experiment was focused on the X-ray measurements of idiopathic scoliosis subjects before and after treatment with the Cheneau Brace.

1) The Cheneau brace significantly decreases lateral deviation and rotation in the adolescent idiopathic scoliosis patients.
2) The Cheneau brace significantly decreases major and minor Cobb and torsion angles in idiopathic scoliosis patients.

In this study, significant reductions in X-ray values were found in these idiopathic scoliosis subjects, this was due to the superior design and functional characteristics which allowed improved detorsion and sagittal normalisation, which would effect correction of the coronal plane, resulting in some elongation of the spine, without any

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