IMPACT OF EHLERS DANLOS SYNDROME - HYPERMOBILE TYPE ON LOWER LIMB FUNCTION

INTRODUCTION

The consequences of the hypermobility type of Ehlers-Danlos Syndrome (EDS-HT) on various joints all over the body, are known. According to Maeland et al., 98% of the patients report musculoskeletal symptoms. However, specific details on lower extremity in general, and foot and ankle in specific, are hardly inventoried.

AIM OF THIS STUDY

• The objective of this explorative study was to evaluate foot related problems and their impact on lower limb function in patients with EDS-HT.
• Different specific domains were covered:
  • foot pain
  • foot function
  • physical activity restriction of the lower limb.

Subjects:
23 female EDS-HT patients (age : 44.3 ± 12.3; Beighton: 6.3 ± 1.9)
and 23, sex and age matched, control subjects (age : 44.7 ± 12.3, Beighton: 2.8 ± 1.8) were included.

Materials:
• The Foot Function Index (FFI) was used to assess the presence of foot disorders in terms of pain, disability and activity restriction.
• The Lower Extremity Function Scale (LEFS) was used to evaluate functional impairment of lower extremity in EDS-HT patients.
• The ‘Foot Health Status Questionnaire’ (FHSQ) was used to evaluate foot health related quality of life.

RESULTS

Concerning the FFI, patients with EDS-HT scored significantly higher for the domain of ‘pain’ and for ‘physical disability’, indicating a significant reduced foot function for the patient group due to foot disorders compared to the healthy control group. (Table 1)
Total LEFS scores, measuring the functional impairment of a patient with a disorder of one or both lower extremities, were significant lower in the EDS-HT group compared to the control indicating severe impact on lower extremity function.
Table 1 demonstrates the results in terms of percentage.
Regarding the FHSQ, EDS-HT subjects vs. controls scored significantly higher for foot pain (theoretical construct : type, severity and duration), for foot function (foot impact on physical function), for general foot health (self perception of feet – body image) and significantly lower for shoe information (lifestyle/footwear).
(Table 2)

CONCLUSION

Despite the limitations of the study, EDS-HT has proven to have a large disabling impact on foot function as well as on the entire lower limb segment.
The need for adequate screening and appropriate interventions clearly arises.