# DYSAUTONOMIA TREATMENT IN EHLERS-DANLOS SYNDROME TYPE III PATIENTS. PRELIMINARY STUDY


**Jaime F. Bravo**
San Juan de Dios Hospital. Santiago, Chile

**Background/Purpose:** The purpose of this study was to evaluate the results of a Dysautonomia treatment in a short period of time, asses compliance and possible side effects. Dysautonomia generally goes undiagnosed, and usually the treatment is not well carried out by patients.

**Method:** Forty seven Ehlers-Danlos type III (EDS-III) patients were studied over a two month period, all under a 0.1 mg per day Fludrocortisone treatment. Patient indications included adding 6 to 9 grams of salt per day to the diet, increasing fluids intake until the urine becomes clear like water, including electrolyte beverages, increasing the physical activity, and the use of elastic stockings. The diagnosis of Dysautonomia was clinical. Patients were evaluated by the same physician, and revaluated within a two month period of time.
Age Range 11 to 58, Average Age 27.7. Females 39 (83%).

**Results:** 1751 patients had EDS-III. BSc negative: 55.1%. Dys positive: M 26.5%, F 52.7%. Group A: M 56.1%, F 79.5%. Group B: M 20.1%, F 46.8%.

A.- Blood pressure: basal and with treatment.

| Systolic BP | 90 | 100 | 110 | 120 | 130 | 140 | |
|---|---|---|---|---|---|---|---|
| Basal BP | | 10 | 14 | 19 | 3* | 1* | |
| BP (With treatment) | 1 | 11 | 19 | 8 | 5 | 3 | |

* these patients had low BP at home.

B.- Compliance with treatment

| Prescribed Measures | Number of Patients | Complied with Treatment |
|---|---|---|
| Salt intake | 22 | 46.8 % |
| Liquid intake | 23 | 48.9 % |
| Electrolytic beverages intake | 12 | 25.5 % |
| Elastic stockings usage | 12 | 25.5 % |
| Physical activity | 33 | 70.2 % |

C.- Improvement with treatment.

a.- Improvement of Chronic Fatigue.

| Improvement | Number of pts | Results | |
|---|---|---|---|
| <30 % | 8 | 17 % | Bad |
| 30-60 % | 15 | 32 % | Regular |
| 60-80 % | 18 | 38 % | Good |
| 80-100 % | 6 | 13 % | Excellent |

Improvement in Chronic Fatigue was noted in 39/47 (83%), it was good or excellent in 24/47 (51%).

b.- Improvement of other symptoms

| | Never had | Improved | Worsen | No Change | Improvement |
|---|---|---|---|---|---|
| Syncope | 33 | 13 | 1 | 0 | 93% |
| Dizziness | 19 | 25 | 3 | 0 | 89% |
| Presyncope | 18 | 24 | 5 | 0 | 83% |
| Head Ache | 3 | 31 | 11 | 2 | 70% |
| Cramps | 22 | 16 | 3 | 6 | 64% |
| Cold Intolerance | 1 | 29 | 11 | 6 | 63% |
| Memory | 1 | 23 | 1 | 22 | 50% |
| Concentration | 0 | 23 | 2 | 22 | 50% |
| Disorientation | 14 | 16 | 0 | 17 | 49% |

The vast majority of the patients (91.5%), showed no side effects to the treatment, such as, weight gain, moon face, fluid retention, hypokalemia, cramps, polyuria, hypertension or swelling of hands or feet.

**Conclusions**:

•Dysautonomia was more frequent in females, as observed in other studies (83%). It is important to note that it affects mainly young patients, 64% of them were less than 30 y/o and only 15% were 40 y/o or older.

•Improvement was seen in Syncope (93%), Dizziness (89%), Chronic Fatigue (83%), and Presyncope (83%) and to a lesser degree improvements in: Headaches, Cold intolerance, Memory and Concentration.

•Only 36% of the patients complied fully with the general measures of the Dysautonomia treatment, which could explain why there was no significant increase in blood pressure with treatment in the short period studied.

•It is important to highlight the fact that there were no significant side effects in 92% of the patients.

•Further studies with longer period of observation are necessary, to validate the results of this preliminary study.