Effects of Human Placenta Extract Laennec on Quality of Life and Physical Performance in Patients with Chronic Fatigue Syndrome

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potentiating the restoration of the body’s adaptive resources, in

first decade of the 20th century, after discovering new technics for placenta’s extracts and suspensions preparation (Gromova

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f patients with verified diagnosis “Chronic fatigue syndrome” (CFS). ***Material and methods:*** *The study patients with CFS, randomized into 2 groups: the experimental group (HPEL, 24 people) - patients d by 10 intravenous Laennec infusions, 4 ml each, 2 times/week, for 5 weeks and passive control group pers.). Before, after, and 5 weeks follow-up treatment efficacy was evaluated by severity of chronic ronic Fatigue inventory), state anxiety and depression level (STAI and STDI) and Health related Quality QoL, questionnaire SF-36v2), exercise tolerance (cardiopulmonary exercise test with gas analysis), meters.* ***Results:*** *The HPEL patients showed a significant reduction in index of chronic fatigue values, accompanied by significant decrease in situational depression, anxiety, improvements in subjective*

fatigue was not verified as CFS, improvement of fatigue was

the efficacy and safety of HPE Laennec intravenous infusions in treatment of patients with verified diagnosis of CFS.

METHODS

Participants and Randomisation

and liver, inflammatory parameters), consulting by neurologist to

38 patients with verified diagnosis of CFS (G 93.3), 18 men and 20

Table 1. No statistically significant differences occurred between

significantly higher in CTRL group.

HPE Laennec Infusion Program

Registering certificate No. 013851/01-08, Ministry of Health,

collected patients’ reports on possible side effects and adverse

Evaluation of Psychological Status and Functional Exercise Capacity

by the certified biochemical laboratory (NPO “Efis”, Moscow)

Table 1.
Demographic information and characteristics of the subjects

Demographic and clinical information	**HPEL(n=23)**	**CTRL(n=13)**	**P value**
Sex:Male – n (%)	10 (43.5%)	7 (53%)	ns
Age, years	45.4 (30. 61)	44 (28.62)	ns
Smoking – n (%)	4 (17.4%)	3 (23%)	ns
Height, cm	171.4 (158-190)	172.9 (156-178)	ns
Weight, kg	75 (60-102)	75 (60-102)	ns
Comorbidities and medication			
Arterial Hypertension – n (%)	5 (21.7%)	2 (15.4%)	ns
Hypotensive therapy– n (%)	5 (21.7%)	2 (15.4%)	ns
Diabetes Mellitus T2 – n (%)	1 (4.3%)	-	ns
Hypoglicaemic therapy	1 (4.3%)	-	ns
Decreased VO2 peak (<84% predicted individual values), ml/kg/min	16 (69.6%)	6 (46.2%)	0.032

scores were computed by first transforming and summarized in an

36 Health Survey. The 36 items reflect the eight scales: physical

scale is computed by first transforming the raw scores into a range

The subjects' improvement in exercise tolerance was checked by Cardiopulmonary stress test (Fitmate MED (COSMED, Italy)

-4,6 -7,5 -10,0 METs. Peak oxygen uptake (VO higher than at the baseline. CTRLs showed no significant change

Functional Exercise Capacity

AT, the total exercise time to exertion and other parameters of

no significant difference. After the treatments HPEL group showed

peak, which were significantly high than

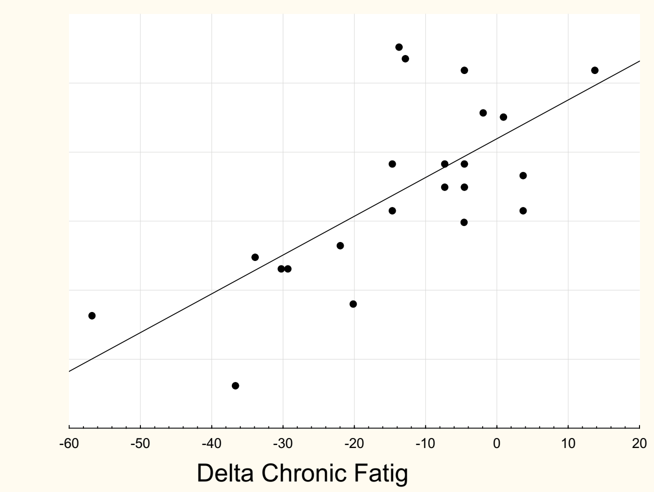
statistic significant difference between the groups in time to reach AT (Table 3). SBP max at the maximum

significantly, but not in CTRL.

57.8 ± 7.4

63.0 ± 12.2*39.6 ± 9.6*CTRL

6	**% VO_2 peak**	HPEL	78.4 ± 17.4	87.2 ± 17.2$^{*\#}$	85.9 ± 16.9*
		CTRL	85.2 ± 14.6	77.5 ± 10.1	-
7	**VO2AT, ml/kg/min**	HPEL	17.3 ± 3.6	19.9 ± 4.3*	20.4 ± 4.9*
		CTRL	21.8 ± 2.8	19.5 ± 2.4	-
8	**% VO_2AT**	HPEL	66.4 ± 5.3	70.1 ± 5.9$^{*\#}$	71.6 ± 5.1*,**
		CTRL	72.8 ± 9.5	64.5 ± 9.9	-
9	**SBP max, mmHg**	HPEL	162.5 ± 17.4	145.8 ± 16.3$^{*\#}$	142.6 ± 9.0*
		CTRL	157.1 ± 11.8	160.5 ± 14.9	-
10	**DBP max, mmHg**	HPEL	87.2 ± 8.5	83.7 ± 5.7	92.3 ± 6.1**
		CTRL	98.1 ± 8.1	96.6 ± 8.3	-



We discovered a high significant negative relationship between

significant positive relationship between the differences of the CFI

There were no significant changes in the immune, hormonal

inter-individual variability recorded parameters and confirm the absence of specific laboratory indicators of immune response and only in cholesterol metabolism (a significant reduction in total cholesterol from 5.76 ± 1.18 to 4.83 ± 1.07 Mmol/L, p ≤ 0.042 and LDL cholesterol from 3.55 ± 1.18 to 2.93 ± 0.99 Mmol L p ≤ 0.039), that confirms hepatoprotective and normalizing lipid metabolism

DISCUSSION

condition. Aside from the adverse effects to patients' health,

We found statistically significant relevant improvements in

of individual strength (CIS), based on subjects' self-reports, and fatigue was not verified by neurologist as CFS.

HRQoL subscales in sample group with verified primary diagnosis

in different patients' categories (Spielberg et al., 2004). In CFS subjects HPE infusions reduce fatigue, potentiate physical fitness

To our knowledge this is the first study that investigated the effects of HPE Laennec intravenous infusions on CFS patients'

parameters. We observed significant increase in HPEL subjects'

significantly in CTRL.

period of time. In concordance to Kong et al., who did not find

Multiple positive effects of Laennec infusion on CFS