

THE LONGITUDINAL OUT-PATIENT TREATMENT WITH GEROVITAL H₃

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Summary. The results are presented of the therapy with Gerovital H₃ administered to out-patients by the gerontological centre of the National Institute of Gerontology and Geriatrics.

The effects of the treatment, based on the indicators of the functional capacity of some apparatus and systems (dynamometric indices, ventilation tests, Schneider test, stature and weight indicators *a.s.o.*) were observed in different groups of subjects under treatment for 3 to 5, 6 to 10 and over 11 years.

The observation of the patients under common life and working conditions allowed us to make an accurate evaluation of the resistance to stresses, work efficiency, resistance to intercurrent diseases.

The statistic evaluation of the data and their dynamic evolution allowed a longitudinal representation of the efficiency of the biotrophic therapy with each and every case, as well as the global estimation of the effect in relation to the duration of the treatment.

The positive results confirm the efficacy of Gerovital H₃ treatment; the longer the treatment and the earlier its setting up, the more conclusive the data.

Recent researches brought about new proofs of the beneficent effects of the Gerovital H₃ treatment. The positive results point out the metabolic implications in the regulation of certain mechanisms involving the biochemical components [1].

The researches also pointed out the positive influence upon interoceptors, glucide, lipid and protein metabolism, as well as an improved oxidative balance.

These multiple implications account for the anabolic and eutrophic effects, the maintenance and stimulation of regeneration, the positive plastic, metabolic and tissular changes [2].

The double-blind studies [3], pointed out the efficiency of the Romanian product, the procaine levels subsequent to Gerovital H₃ administration were much higher — the elimination of metabolites was superior as against plain procaine, the nervous influx conduction speed in the peripheral nerves increased. The metabolic role and the antidepressive effect of the biotrophic products, administered according to Prof. Dr. Aslan's method were also evidenced [4].

The present paper aims at evaluating the efficacy of the Gerovital H₃ treatment longitudinally administered, on certain somatometrical and functional parameters. The dynamics of these parameters was particularly assessed under the long-term administration of Gerovital H₃.

MATERIAL AND METHOD

A group of Gerovital H₃ treated patients were subjected to the study. The treatment, administered at the Polyclinic of the National Institute of Gerontology and Geriatrics consists in 4 annual series of 12 ampoules each, 3 per week, adminis-

tered to out-patients. The subjects were divided into 3 subgroups, as shown by Table 1:

- a) persons subjected to the treatment for at least 3 years (the group 3-5 years) - 36 women, 26 men;
 b) persons subjected to the treatment for at least 5 years (the group 6-10 years) - 38 women, 32 men;
 c) persons subjected to the treatment for at least 10 years (the group over 11 years) - 16 women, 12 men.

Table 1

Distribution of subjects by duration of treatment, age and sex groups			
		Women	Men
		absolute figures	
3-5 years	40-59 years	23	2
	60-69 years	32	37
	70+ years	21	27
Total		76	66
6-10 years	40-59 years	19	2
	60-69 years	28	33
	70+ years	21	27
Total		68	62
11+ years	40-59 years	9	2
	60-69 years	21	19
	70+ years	16	21
Total		46	42

Table 1 also shows the distribution of subjects by age and sex.

The parameters under study:

- a) somatometric: - weight
 - height
 - height in sitting position
 - thoracic perimeter both in inspiration and expiration;
 b) functional: - dynamometry
 - Broca index
 - induced apnoea test
 - Schneider test
 - arterial pressure

RESULTS AND DISCUSSION

Among the parameters studied, particular attention was paid to dynamometry, arterial pressure and weight.

Dynamometry. The positive effect of the Gerovital H3 treatment was easily noticed (Diagram 1). For the age groups 40-59 and 60-69 years, the effect is represented by an annual ascending curve even since the end of the first year;

it continues until the 6th year for the 5th and 6th age decades and until the 6th year for the 8th age decade. With the subjects under treatment for over 10 years, the dynamometric values were constantly superior to the initial ones. With the subjects in the 8th decade and over, the line remained at the same level, fact which is also significant. Comparatively, by age decades, the improvement is evident during the first years of treatment with the younger ages. The positive effect was stronger in women as against men in the 8th decade and over.

Arterial pressure. Diagram 2 points out clearly the constant effect upon the mean arterial pressure values. A slight tendency of the values to increase without reaching the pathological limit was noticed with all the age-decades, as a result of the biotrophic treatment; the mean values remained within the limits of physiological involution. The values of the arterial pressure did not exceed the figure which requires the use of a major hypotensive agent when risk factors with a certain negative effect were present before initiating the treatment and subsequently continued to act.

No coronary and cerebral accidents, either minor or major, occurred in the studied persons.

Body weight (Diagram 1). Values improved particularly in the slightly underweight persons. The highest positive values, exceeding the average values throughout the country were noticed with the age groups in the 5th and 6th decades. Over the age of 60, the results were not conclusive during the first 2 years; starting with the 3rd up to the 8th year of treatment, the weight gain was remarkable, particularly in men.

The age-group in the 8th decade and over benefitted by the treatment, particularly in the interval of 60–80 years.

Vital capacity, thoracic perimeter, Schneider test (diagrams 2, 3). Although appearing as slight deviations from the straight line they pointed out the efficacy upon certain mechanisms and processes which are usually constantly descending.

Mention should also be made of the following facts:

- Osteoarticular allergic phenomena either improved or were totally controlled in 80–85% of the cases. The uninfluenced cases did not worsen.
- Seasonal osteoarticular painful recurrences were controlled, the psychic condition and sleep improved, the resistance toward seasonal intercurrent diseases increased.

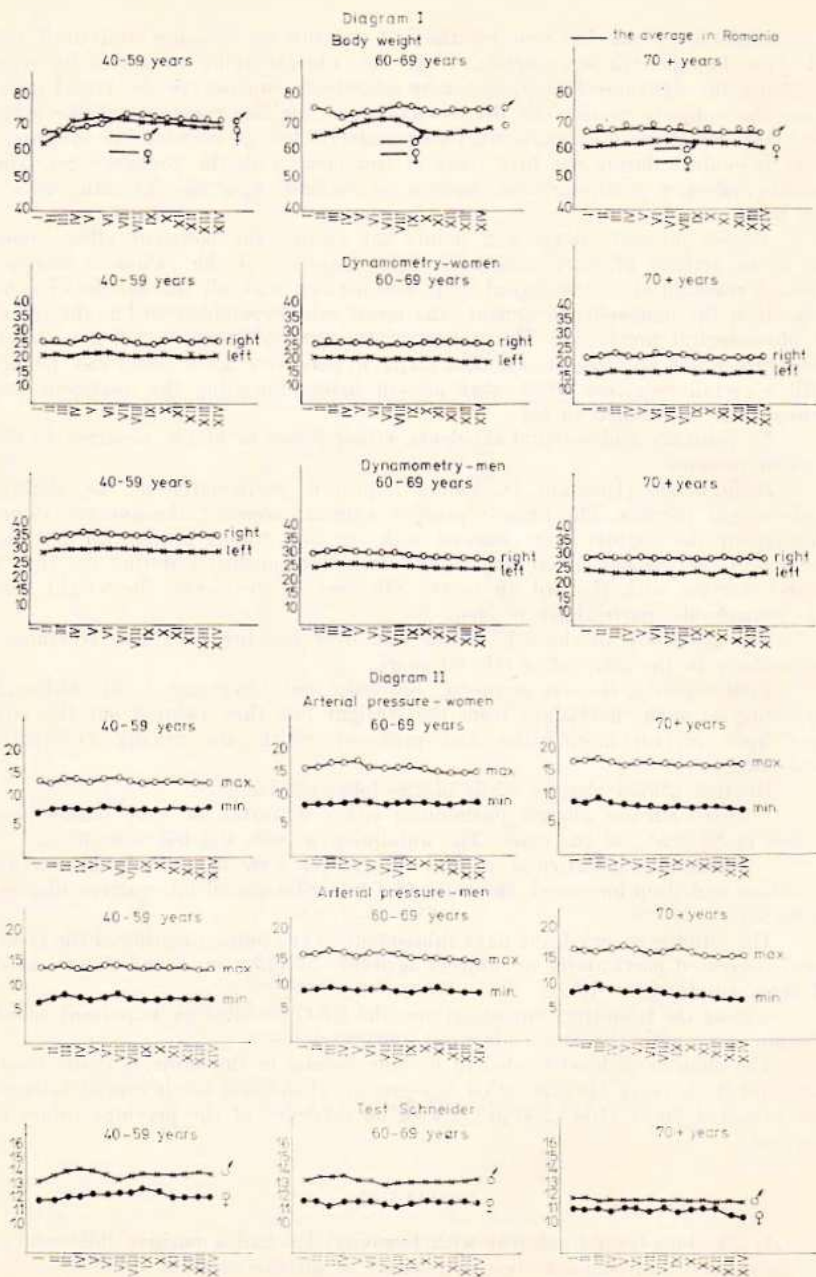
The number of sick-leave days subsequent to the administration of the treatment decreased particularly in subjects aged 40–59 (23 women and 2 men, most of them employees — 19).

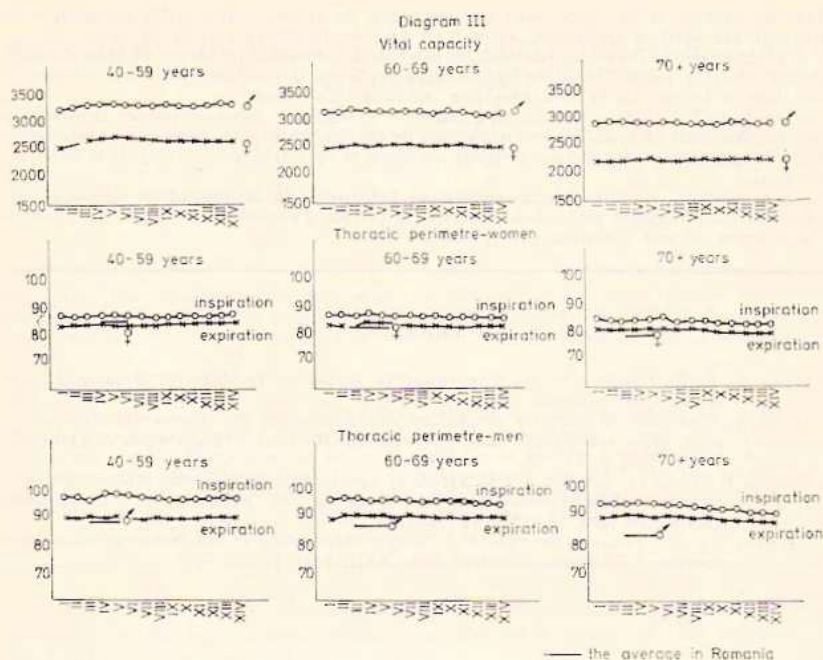
Among the laboratory investigations, the EKG revealed no important modification even with the most advanced age-groups.

The cholesterol level tended to become normal in the subjects under treatment for 3–5 years. In the other age-groups, cholesterol levels ranged between the admitted limits (160–260 gr%) with no tendency of the previous values to increase.

CONCLUSIONS

1. The long-term treatment with Gerovital H₃ had a positive influence on the functional and somatometric parameters in all the subjects studied.





2. The efficacy is remarkable from the first year of treatment; it follows an ascending curve and maintains itself at the highest level during the second until the sixth year of treatment, after which it keeps constantly above the initial values.

3. The dynamometry is a parameter which points out the efficacy of Gerovital H₃ in the 5th - 6th age-decades.

4. Gerovital H₃ proved to be one of the chemiotherapeutical products with a complex influence on the mechanisms involved in the regulation of the arterial pressure; our results indicate that Gerovital H₃ can be prophylactically used for maintaining the physiological involution.

5. The major weight gain is constantly distributed by age-decades, the highly underweight subjects' gain in weight taking place particularly from the second until the eighth year of treatment.

6. According to the results of our study, the improvement of the preservation of functional and somatometric parameters requires the long-term administration of Gerovital H₃ treatment.

7. The out-patient treatment is widely accepted since the patient is not obliged to remain in the hospital. The results of the out-patient treatment are as good as those obtained with hospitalized patients.

Résumé. On présente certains résultats obtenus par la thérapie au Gérovital H₃ dans les conditions ambulatoires au centre gérontologique de l'I.N.G.G.

Les effets du traitement évalués à partir d'indicateurs de la capacité fonctionnelle de certains appareils et systèmes (dynamométrie, épreuves de ventilation, épreuve de Schneider,

indices de hauteur et de poids, etc.) ont été suivis de manière différentielle sur groupes de sujets qui ont suivi le traitement entre 3-5 ans, 6-10 ans et plus de 11 ans.

L'observation directe des cas dans les conditions habituelles de vie et de travail nous a donné aussi la possibilité d'une appréciation réelle de la résistance au stress, du rendement dans le travail, de la résistance aux maladies intercurrentes.

Le travail statistique des données dans leur évolution dynamique permet la représentation longitudinale de la thérapie biotrophique de chaque cas à part, mais aussi l'estimation globale du phénomène du groupe de sujets soumis à la recherche en fonction de la durée du traitement.

Les résultats positifs obtenus confirment l'efficacité du traitement au Gé-ovital H₃, les données étant d'autant plus concluantes, que la période d'administration a été plus longue et le moment de son initiation plus précoce.

REFERENCES

1. ASLAN A. *Bazele teoretice ale procainoterapiei in prevenirea imbătrânirii. Produse Farmaceutice*, Ed. medicală, 1976, p. 3-9.
2. ASLAN A. *Eine neue Methode zur prophylaxe und Behandlung des Alters mit Novocain - stoff H₃ - eutrophische und verjüngende Wirkung*. Therapiewoche, Karlsruhe, I-2, 1956, p. 14-22.
3. GORDON P., FUDEMA I., ABRAMS A. *Effects of Romanian and American procaine preparations on certain physiological aspects of ageing*. The Gerontologist, part. II (Sept. 1963). Exc. Med. Sect. XXIV, 162, 1964.
4. MACFARLANE D. *Procaine (Gerovital H₃) therapy: Mechanism of inhibition of monoaminoxidase*. J. of Amer. Geriatrics Soc., XXII, 1974, p. 365-371.