Clinical Consequences of EDTA Chelation

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Abstract

As far as we can determine, this is the only review of the clinical picture of patients before and after ethylenediami-netetracetic acid (EDTA) chelation therapy and with multivitamin/trace mineral (MVTM) support by means of an organized history, the Cornell Medical Health Index Questionnaire (CMI). Group I consisted of nonspecific chronically-ill patients; Group II included only confirmed hypertensive subjects. Four points deserve emphasis. First, in both categories, the patients are initially and unequivocally seriously ill. Secondly, in the two subsets, there is a statistically significant improvement in clinical symptomatology. For example, one could demonstrate a reduction of musculoskeletal findings of a magnitude of approximately 30 percent. Additionally, in Group I there is a significant decline in fatigue (39 percent) and an improvement in emotional wellbeing (reduction in tension and depression of about 50 percent). Finally, the success seems greater in Group I, possibly because the EDTA dosage was larger.

Introduction

In keeping with the principles of allopathic medicine, EDTA chelation is viewed as one of the *specific* therapeutic tools for the treatment of a *specific* syndrome, namely lead poisoning.[1] At the other pole is the revolutionary *nonspecific* likelihood spelled out by distinguished investigators that extrapolations from lower animals suggest the possibility of significant life extension in the human.[2] Between these two extremes are several score reports of varying sophistication, published over the past few decades, which emphasize the *specific and nonspecific* potential of EDTA in many different areas such as Parkinsonism, Alzheimer's disease, rheumatoid arthritis, Huntington's syndrome and multiple sclerosis.[3 4]

As far as we can ascertain, there has never been a structured interrogation of the *nonspecific* clinical symptomatology of routine chronically-ill patients before and after therapy with EDTA chelation.

Method of Investigation

This report, the first of a trilogy, considers the clinical picture of two sets of subjects. The first study at the McDonagh Medical Clinic in Kansas City, Missouri (is to be referred to hereafter as Group I); the second subset at the Olive W. Garvey Center in Wichita, Kansas (Group II).

Group I includes 139 chronically-ill subjects who were treated unsuccessfully elsewhere. Parenthetic mention should be made that "the most appropriate candidate for chelation therapy is the patient with diabetes mellitus and atherosclerotic involvement of the smaller arterial vessels of the lower extremities."[4] Accordingly, we studied,[5] independently of this project, 334 chelation-eligible patients (178 males, 59.2 ±12.1 years and 156 females, 60.8 ± 12.4 years). Utilizing the variously recognized normal ranges for glycohemoglobin, it appears that somewhere between 15 (for males) and 19 (for females) percentage of the subjects in this experiment could be viewed as diabetic. Employing the most liberal norms, 96 percent of this group may be viewed as potentially diabetic.

Group II embraces 28 patients with presumably only refractory essential hypertension.

All participants initially and following treatment completed the CMI.[6 7] This 195 question form, developed over 40 years ago was originally created to satisfy the need for a device to collect a large body of relevant medical and psychiatric information with a modicum of physician-time expenditure. Over these decades, this questionnaire has been more time-tested than any other history-taking technique. With

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this form, we shall be provided a general estimate of overall health, an analysis of symptomatology by systems, and specific information regarding fatigue and emotional state.

Both groups received EDTA infusions. In all instances, the solution contained three grams of EDTA intravenously. Additionally, all subjects were provided with a multivitamin/trace mineral supplement.

In Group I, the therapy lasted for approximately eight weeks and consisted, on a mean basis, of 26.2 infusions. The treatment in Group II incorporated a maximum of 30 infusions extending over approximately 30 weeks.

Results

With regard to Group I, four points warrant special consideration. First, the average patient reported 31.7 complaints.[8] Twenty-five or more positive replies suggests significant disease. Hence, on a mean basis, this group must be viewed as being in very poor health (confirmed from the glycohemoglobin observations previously mentioned). Secondly, the range of responses is considerable; from a low of 3 to a high of 95. Thus, some subjects must be in extreme poor health. Next, approximately 58 percent have significant problems (greater than 25 yesses) at the initial encounter. Fourth and lastly, the evidence is clear that the average score decreased from 31.7 to 25.9 (15 percent improvement) following the EDTA therapeutic course.

Hence, with regard to this first observation, it is abundantly clear that routine chronically-ill patients (Group I) about to be subjected to chelation therapy are initially very ill and that one can reduce the clinical pathology of an order of about 15 percent.

A system analysis was carried out on the same subjects[8] before and after chelation treatment (Table 1). First, it is evident that patients seem to have many different complaints in several systems. Secondly, the changes following chelation varied widely. For example, in the 101 patients complaining with musculoskeletal symptomatology (line 1), there was a decline of 31 percent; in the 124 subjects reporting gastrointestinal findings (line 8), there was a 13 percent reduction.

Notwithstanding, it is important to underline that there were statistically significant improvements in all systems.

Mention was made earlier that the CMI allows a study of the incidence of various specific problems and the changes with this therapeutic regime. For example, the significance of fatigue was reported.[9]

Three points are summarized. Firstly, the tiredness complaints range from zero to six. Secondly, during this approximately two month period, those with no exhaustion findings rose from 31.7 to 56.1 percent, an increase of about 25 percent. Thirdly, 44 of the 139 did not report tiredness initially. Hence, the data were recalculated for the 95 individuals who described one or more fatigability complaints at the start. In this symptomatic group, the mean declined from 2.59 to 1.58, an improvement of 39 percent.

It is clear that, following EDTA chelation and multivitamin/trace mineral support, one can expect a reduction of approximately 39 percent in fatigability.

Additionally, as far as we can establish, this is the first and only attempt to measure the emotional state of the chelation-treated patient within the limits of a time-tested and respected measuring instrument for feelings and moods, the M-R section of the CMI (Table 2).[10] It can be safely concluded that the average patient (Group I) demonstrates significant emotional illness and that, after approximately 26 EDTA infusions extending over about 60 days of therapy, the overall clinical (emotional) symptomatology is reduced about 30 percent. The specific reflections of feelings and mood show an improvement from a low of 23 percent in the case of anxiety (line 6), to a high of 50 percent for tension (line 1).

Therefore within the limits of this study of allegedly non-psychiatric patients, EDTA may well serve as an effective psychotherapeutic instrument.

It should be recalled that this issue of the clinical consequences of EDTA therapy has also been examined in a different practice and in another type of patient (Group II).[11] Specifically, this is a study of 28 hypertensive patients who have been analyzed initially by means of the CMI and after 10 and 20 infusions along with

multivitamin/trace mineral supplementation. At the beginning, the total number of affirmative responses was 35.7. This, it should be recalled as indicated earlier, suggest overall serious illness. The system results are summarized in Table 3.

It is noteworthy that in many instances, there is a statistically significant reduction in symptomatology (after 10 infusions in neurologic, digestive and cardiovascular, lines 2, 3 and 5 respectively and after 20 infusions in neurologic, digestive, integumentary and cardiovascular, lines 2,3,4 and 5).

Discussion

A re-examination of the data suggests in these two groups interesting similarities and differences.

The point has earlier been made that the total number of affirmative responses is some crude estimate of the overall seriousness of the illness. At first blush, it would seem that these two groups of subjects are very different. Group I consists of generally chronically-ill patients. Group II is made up of specifically hypertensive subjects. Interestingly, the total number of affirmative responses is strikingly similar (in Group I, 31.7 and in Group II, 35.7). Hence, to the extent that a comparison can be made, it would seem that there may be more similarities between these two studied groups than one might expect. Perhaps the most significant item is that, under this therapeutic program, there was significant improvement in both groups. Obviously, the nature and design of this study does not allow isolating the relative contributions of EDTA versus multivitamin/ trace mineral supplementation, or possibly even a placebo effect.

An examination of the pre and post system symptomatology shows some differences in the two projects. In Group I, there was a statistically significant improvement in all systems; in Group II only in some. This may possibly be the result of the uniqueness in the groups. More likely, it may be because of the differences in EDTA dosage. For example, in Group I, the subjects were infused approximately three times per week; in Group II once weekly. One can only speculate as to whether the improvement might not have been greater in Group II had the patients been given the more intensive Group I regime.

A report to follow will outline,'for the first time in an organized fashion, a series of observations dealing with cardiovascular dynamics before and after chelation therapy in these same two groups of subject.[12]

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Table 1
Effect of EDTA chelation upon systems in symptomatic subjects

line	system	sample size	mean percentage reduction
1	musculoskeletal	101	31*
2	integumentary	64	28*
3	neurologic	108	23*
4	genital	58	23*
5	cardiovascular	130	22*
6	respiratory	106	20*
7	urinary	106	15*
8	gastrointestinal	124	13*

* statistically significant difference of die means

Table 2
Effect of EDTA chelation therapy upon psychologic parameters in the symptomatic group (Croup I)

line	psychologic parameter	sample size	mean Percentage reduction
1	tension	51	50*
2	depression	25	49*
3	anger	56	46*
4	inadequacy	69	41*
5	sensitivity	50	37*
6	anxiety	67	23*

* statistically significant difference of die means

Table 3
Effect of EDTA chelation upon systems (Group II)

line	system	mean percent reduction pre versus 10	mean percent reduction pre versus 10
1	respiratory	29	21
2	nervous	29*	32*
3	digestive	23*	20*
4	integumentary	23	38*
5	cardiovascular	18*	18*
6	musculoskeletal	8	30
7	genitourinary	3	6

* statistically significant difference of die means