

Table 6
Personal Present and Past History

Problem	Percentage of Subjects
overweight	40
major injury	40
major operation	34
hay fever	31
hemorrhoids	23
hypertension	23
venereal disease	20
kidney & bladder disease	17
mental hospitalization	17
heart disease	14
liver/gall bladder disease	14
stomach ulcers	9
rheumatic fever	9
anemia	9
asthma	6
paralysis	6
underweight	6
nervous breakdown	6
tuberculosis	3
scarlet fever	3
malaria	3
diabetes mellitus	3
gotter	3
varicose veins	3

DISCUSSION

All of the information provided here is new in the sense that as far as we can determine, it has never been developed. However, most of the data, for that very reason, cannot be compared to other groups. However, the proportion of subjects providing specific numbers of "yes" responses on the CMI has been analyzed for five samples of men, specifically in 152 New York hospital employees (considered as the "normal" group), 282 New York City ostensibly healthy people, 2107 New York City routine hospital patients, 183 New York hospital neurotic patients, and 371 Veterans Administration psychiatric patients. Table 7 summarizes these five groups (3) and allows a comparison with the 27 male parolees in our group. At the critical scoring level of 30, our group of parolees are worse than the New York neurotic group and not quite as bad as the Veterans Administration psychiatric group.

Table 8 is a similar analysis of women and a comparison with the 8 female parolees. At the 30 suggested critical scoring level, the parolee group is sicker than any of the other studied.

Finally, it is interesting to note that other similar investigations of offenders support the evidence that the "health" of persons involved in the criminal justice system is very poor¹³.

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Table 7

Proportion of Subjects Giving the Specified Number of "yes" Responses on the CMI, for Six Samples of Men

no. of "yes" responses	152 NY hosp. employee "normals"	282 NY City ostensibly healthy	2,107 NY hospital patients	183 NY hosp. neurotic patients	371 V.A. psychiatric patients	27 parolees
10 or more	28%	67%	71%	89%	97%	96%
20 or more	05%	37%	42%	68%	90%	93%
30 or more*	03%	10%	23%	52%	76%	56%
40 or more	01%	05%	13%	34%	59%	37%
50 or more*	01%	02%	08%	26%	45%	11%
60 or more	01%	01%	03%	16%	30%	11%
70 or more	00%	00%	02%	08%	20%	0%

*suggested critical scoring levels.

Table 8

Proportion of Subjects Giving the Specified Number of "yes" Responses on the CMI, for Five Samples of Women

no. of "yes" responses	307 NY hosp. employee "normals"	328 NY City ostensibly healthy	3,014 NY hospital patients	343 NY hosp. neurotic patients	8 parolees
10 or more	43%	79%	84%	99%	100%
20 or more	13%	51%	62%	83%	100%
30 or more*	05%	30%	44%	65%	75%
40 or more	02%	16%	30%	49%	50%
50 or more*	01%	09%	18%	34%	38%
60 or more	00%	05%	10%	21%	25%
70 or more	00%	02%	05%	12%	25%

*suggested critical scoring levels.

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The Effect of EDTA Chelation Therapy With Multivitamin/Trace Mineral Supplementation Upon Reported Fatigue

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Introduction

According to the most recent national governmental survey, fatigue is one of, if not, the single most common presenting complaint in medical practice. Specifically, approximately fifteen million persons reported for medical assistance with a primary complaint of tiredness¹. What is even more noteworthy are the uncounted even more staggering numbers of patients with exhaustion as a secondary, tertiary or even unrecognized problem.

This is the story of 139 routinely studied patients with various and diverse chronic disorders, though principally cardiovascular, who (1) sought medical attention, (2) were not especially aware of tiredness as central to their presenting syndrome, and (3) in whom it was possible to quantify their initial fatigue findings and change in tiredness following EDTA chelation therapy plus multivitamin/trace mineral supplementation.

Review of the Literature

The Cornell Medical Index Health Questionnaire (abbreviated CMI), developed over 35 years ago was originally created^{2,3} 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

form has been more time-tested than any other history-taking technique. Section I contains 7 questions relating to fatigue.

Method of Investigation

One hundred and thirty-nine private practice patients (aged 63.0 ± 10.3 years) including 83 males (62.6 ± 10.6 years) and 56 females (63.5 ± 9.7 years) participated in this study (Table 1). At the initial visit, all patients completed the Cornell Medical Index Health Questionnaire. After a series of (on the average 26) 3 gram EDTA chelation infusions plus supportive multivitamin/trace mineral supplementation extending a mean of 61.4 days, all participants once again completed the CMI. By this method, it was possible to quantify the initial fatigability scores and the changes following EDTA chelation therapy (Table 2).

Results

From Table 1-it is evident that the sample embraces a broad age spectrum ranging from the youngest at 34 years to the oldest at 82. It is also clear (Table 2) that the tiredness complaints range from zero to 6 initially.

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Table 1
Age and Sex Distribution

Age Groups	Male Group	Female Group	Total Group
30-39	1 (1.7%)	0 (0.0%)	1 (0.7%)
40-49	9 (14.4%)	6 (10.7%)	15 (10.8%)
50-59	19 (30.2%)	14 (25.0%)	33 (23.8%)
60-69	28 (44.4%)	20 (35.7%)	48 (34.5%)
70-79	24 (38.1%)	14 (25.0%)	38 (27.3%)
80-89	2 (3.2%)	2 (3.6%)	4 (2.9%)
Total	83(100.0%)	56(100.0%)	139(100.0%)
Mean & S.D.	62.6±10.6	63.5±9.7	63.0±10.3
t		0.4821	
P		>0.5000	
Minimum	34	43	34
Maximum	82	82	82
Range	48	39	48

Table 2 also shows that, during this approximately two month period, those with no exhaustion findings rose from 31.7% to 56.1%, an increase of about 25%. It is further evident from Table 2 and underscored in Table 3 that the mean exhaustion score decreased from 1.77 to 1.12, specifically a decline of 37%. One will note that 44 of the

subjects (Table 2) did not initially report fatigability. Clearly, therefore, no improvement could be possible in this subset. Hence, the change in fatigability was recalculated for the 95 individuals who reported one or more complaints initially (Table 3). In this symptomatic group, the mean declined from 2.59 to 1.58, an improvement of 39%.

Table 2
Distribution of Fatigability Scores

Fatigability Scores	Initial Scores	Final Scores
0	44 (31.7%)	78 (56.1%)
1	25 (18.0%)	15 (10.8%)
2	24 (17.3%)	19 (13.6%)
3	23 (16.5%)	13 (9.4%)
4	13 (9.4%)	9 (6.5%)
5	8 (5.7%)	3 (2.2%)
6	2 (1.4%)	2 (1.4%)
Totals	139(100.0%)	139(100.0%)
Mean & S.D.	1.77±1.64	1.12±1.54

Table 3
Summary of Findings

Sample size (total sample)	139
Initial findings	1.77±1.64
Final findings	1.12±1.53
Percentage change	.37
Significance of the differences of the means	t =5.3052 P <0.001*
Sample size (symptomatic group)	95
Initial findings	2.59±1.35
Final findings	1.58±1.65
Percentage change	.39
Significance of the differences of the means	t =6.1771 P <0.001*

*Statistically significant difference of the means

Discussion

As far as we can ascertain, there has been little if any serious effort to quantitate the clinical presence and course of this very common complaint. There has been absolutely no information about the fatigability syndrome in subjects before and after EDTA chelation therapy. Within the limits of this simple experiment, and we hope that this will encourage others to look at this problem with more sophisticated instrumentation, the evidence suggests a statistically significant reduction of exhaustion in addition to whatever was the primary reason for seeking medical assistance.

It is, of course, possible (though highly improbable) that these exciting salutary benefits are accidental or psychologic since a control group could not be included. It should be underlined that this experiment was conducted in a private practice environment with very ill patients. A placebo subset would have been morally wrong and clinically dangerous. Additionally, it is important to mention that, because of the leaching effect of EDTA chelation, it is imperative that there be a multivitamin/trace mineral supplementation program. This then raises the obvious question as to the relative contribu-

tions of the EDTA versus the vitamins/minerals. This report, for the reasons given earlier, does not address itself to this question. Nonetheless, it is fascinating to report for the first time the changes observed in this very ill private practice group under the cited conditions.

Summary

Increasing attention is being given to the biochemical and physiologic parameters and their alterations with EDTA chelation therapy. This is the first attempt to raise and hopefully answer the question regarding the effect of this form of therapy upon America's number one clinical complaint.

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