

THE THERAPY OF THE CHRONIC VITAMIN D AND CALCIUM DEFICIENCY STATE.

The origin and development and clinical aspects of this study have been described in other writings whose titles refer to those subjects and the chemistry and biochemistry of calcium have been described in a book THE CALCIUM FACTOR.

THE THERAPY

As defined in those writings the therapy applied to the patients described in the following case histories was developed within several days of recognizing that an intestinal disease was related to leg muscle cramping that was produced by a diet that rendered the patient calcium deficient and that both the disease and that muscle complaint were relieved by intravenous calcium.

Within days, when the IV oral calcium therapy was replaced by oral therapy vitamin D-3 in fish oil was added on an empirical basis, to ensure that the calcium would be reduced to an ionized absorbable and biologically active form. Within days, also, a water soluble form vitamin D-2 was added to the therapy.

Calcium and vitamin D are synergistic factors, and of the two I am led to believe that the D vitamins are the most important.

TOXIC DOSES

In the late 1980s the Committee on Diet and Health of the US National Research Council published a special report on recommendations regarding dietary supplements.

In it the Minimum Toxic Dose of vitamin A was stated to be between 25,000 to 50,000 and of vitamin D to be 50,000.

In my estimation that dosage of vitamin A is low and possibly more correctly toxicity will only become evident when 50,000 to 100,000 IU are ingested daily.

That report indicates that up to 1989 the FDA had only received reports of 11 cases of toxicity due to overdose of vitamins. Other reports indicate that the rare cases of vitamin toxicity observed were reversible leaving no lasting effects, fewer than five cases of hypervitamin A are reported annually, no deaths have been attributed to vitamin A toxicity. While vitamin D is considered to be the most toxic of the vitamins because overdosage leads to tissue, mainly renal calcification, deaths due to renal disease resembling Brights disease are very rare.

I saw no signs of toxicity due to the A and D vitamins among the near 20,000 cases to whom, over a period of 30 years, I prescribed doses that were far in excess of the RDA.

However I did see indications of intolerance to either the A and D vitamins, or to the solute in which they were dissolved in possibly one in 75 to 100 of those cases. These were in the form of gastric intolerance, dermatitis, leg cramps and headaches. All of these were immediately relieved by discontinuing the therapy, to resume it at one half of the dosage.

During the first ten to fifteen years of this study I performed possibly 1,000 SMA-60 serum estimations of calcium, phosphorus, and alkaline phosphatase before and during therapy. Among those I noted several cases of unexplained abnormality of those findings, which cases then were not given the therapy. In rare treated cases therapy was discontinued or reduced to elevated serum levels of one or more of those factors.

ASTHMA IN A CHILD

A child age four years who had been prone to upper respiratory infections and asthma attacks since birth. during the previous year he had been given six to eight antibiotic prescriptions and had been hospitalized once. He experienced frequent "exercise induced" asthma attacks for which he was given Alupent inhalations. He also received frequent Ventolin inhalations by a home ventilator.

The child had a sibling several years older who was well. The child was born of a mother who had been severely fatigued for years, and had received allergy "shots" and gamma globulin injections. The pH of her saliva was 5.5 and her muscles were extremely tender on only moderate palpation. Her energy "tripled" and her vision improved as I treated her deficiency.

The child had a good appetite, ate good helpings of vegetables, but drank only 1/2 q glass of milk daily. He was not asthmatic when I initially saw him. The pH of his saliva was 5.5 and his trapezius and soleus muscles were very tender on only moderate palpation.

I prescribed one halibut liver oil capsule and four drops of Aquasol A and D and approximately 330 mg of calcium and 200 mg magnesium daily. I also advised that the mother try and give him "Lactaid" milk.

Five months later the child's mother phoned to state that he had "completely recovered". He had experienced several "colds" which had not bothered him and could exert himself without wheezing. As he worried less, he was much happier. He now enjoyed drinking milk.

Using the litmus paper that I had given her the mother noted that his salivary pH had rapidly increased to 7.5.

Over the past five years the child had one attack of pneumonia in the first year but had been perfectly well since. I advised that the dose of Aquasol A and D be discontinued in the summer periods, but resumed if any recurrence of symptoms was noted.

This child's exudative and spastic bronchial state was not due to "allergy" but to a "deficiency reaction" which, at times was complicated by adaptive spasm.

ASTHMA IN AN ADULT

A fifty one year old insurance agent who had controlled his chronic asthma for four years with Ventolin until it became increasingly severe last year. He then became severely breathless on exertion and on exposure to cold air. Taking prednisone twice daily provided some relief.

Dietary and other functional enquiry indicated that he never drank milk, experienced stomach gas, dry skin and chronic nasal obstruction which had been helped to some degree with surgery.

Examination revealed that he was coughing frequently, had a salivary pH of 5.0 and considerable tenderness of the trapezius and soleus muscles.

Prescription consisted of a diet of alkaline producing foods, three halibut liver oil capsules, three dolomite tablets, and nine drops of Aquasol A and D twice daily. That dosage provided 7,200 IU of D-3 and D-2 and 48,000 IU of vitamin A.

He noted dramatic improvement in the second month and after three and one half months he was exercising better and was playing tennis again. He required only the occasional spray of Ventolin and one Cholestyl tablet in the morning. His nose was better, his skin softer and an ankle rash had cleared.

Examination revealed a lesser degree of muscle tenderness and a salivary pH of 6.0.

RHEUMATOID ARTHRITIS

Detailed case histories of rheumatoid arthritis were inadvertently discarded. Nevertheless, for the record, I maintain that they followed the same pattern of cases of asthma and ileitis-colitis on therapy. This included presence of the lifestyle defects, stigma of the deficiency syndrome including a lowered salivary pH, presence of a raised sedimentation rate and improvement of both the arthritic disease and those other clinical findings on therapy.

COMBINED RHEUMATOID AND OSTEOARTHRITIS

A seventy one year old man who was near totally crippled with arthritis to the degree that he could only walk with difficulty and once sitting in a chair had to be helped out of it.

His wrists were swollen, tender, and semi-flexed. His ankles were severely swollen and his sedimentation rate was 36 mm. per hour.

I prescribed a diet of alkaline forming foods, two cod liver oil capsules, one halibut liver capsule, six drops of Aquasol A and D and 1/2 Gm. of bone meal, all three times daily. That dosage provided 6,600 IU of vitamins D-2 and D-3 and one and one half grams of bone meal daily.

After one week of therapy he stated that his pains were greatly relieved, his wrists were less swollen and that it was now easier for him to get out of a chair. His constipation had improved. Two years later he stated he could do anything such as getting under his tractor to repair it and to shingle a barn. His sed. rate was 2. Four years after beginning therapy he stated he couldn't believe that he had remained so well.

TO BE CONTINUED

THERAPY OF THE VITAMIN D AND CALCIUM DEFICIENCY STATE

NOTE: This therapy of this state, creating symptoms or symptoms and disease is guided by: i) definition of responsible lifestyle defects, ii) the presence of certain symptoms and physical signs of which an acidic state of the saliva is the most incriminating.

AVERAGE INITIAL QUANTITIES OF CARRIERS AND THE DOSAGES OF VITAMINS

	INFANT	THREE YEAR OLD CHILD	10 to 15 YEAR OLD ADOLESCENT	ADULT
Aquasol A and D drops	1 ounce daily	2 to 3 bid	3 to 5 drops bid to tid	6 to 8 drops bid to tid
Halibut Liver Oil Capsules	1/2 once	one ounce	one bid to tid	two bid to tid
DOSAGE OF D	350	1,400 - 2,000	5,600 - 5,200	3,000 - 8,800
DOSAGE OF A	5,000	10,000 -13,000	22,000 -35,000	30,000 -62,000
Calcium and Magnesium	50-75 CA.	75-125 CA + 1/2 of MG once or bid	500 CA + 1/2 of MG once or bid	500 CA 1/2 of MG bid - tid

THE VITAMIN PREPARATIONS

AQUASOL A AND D: By Rhone-Poulenc-Rorer Can. Inc. 8580 Esplanade Montreal QU. H2P 2R9 (514) 384-8220. Each three drops contains 800 I.U. of ergocalciferol vitamin D-2 and 4,000 I.U. of natural vitamin A.

HALIBUT LIVER OIL CAPSULES: By R.P. Scherer Ont. (519) 253 2405. Each capsule contains natural vitamin D-3 which has been brought up to 400 I.U. D strength per cap. by the addition of some vitamin D-2. Each capsule also contains 5,000 I.U. of natural vitamin A.

TOXICITY OF THE VITAMINS AND MONITORING OF DOSAGES.

VITAMIN A: Intolerances are infrequent, toxicities very rare and death due to overdosage practically unknown. Major intolerance is a mild rash and dry skin.

VITAMIN D: Intolerances more frequent but rare include headache, constipation, nausea, arrhythmia and muscle pain. Monitor prior to therapy for pre-existing very rare elevated serum calcium and during therapy for rare toxicity in suspected cases by testing serum for elevated calcium and alkaline phosphatase.

CONCLUSIONS OF US RESEARCH COUNCIL COMMITTEE ON DIET AND HEALTH (1988)

	MINIMUM OR STARTING TOXIC DOSE	RECOMMENDED DAILY ALLOWANCE
VITAMIN A	25,000 to 50,000 I.U.	5,000 I.U.
VITAMIN D	50,000 I.U.	400 I.U.

MY COMMENTS: This M.T.D. for vitamin A is far too low and instead should be, and likely has been raised to 50 to 100,000.

Is is also most incongruous that, while the M.T.D. dosages of these vitamins are in these ranges, that the RDA is held at 400 and 5,000 I.U. Whose influence does this represent?!