CALCIUM TYPES IN DENTISTRY

Disorders in calcium metabolism are frequently observed by the dentist. Hawkins says that the term pyorrhea should be applied only when the bony process surrounding the teeth is destroyed either by bacteria from soft tissue pockets or by a metabolic disturbance. We list in the chart below three principal calcium metabolic disturbances found in pyorrhea with their symptomatology, etiology, suggested dietary supplements, and prognosis under this treatment. For detailed information on this subject we refer you to the transcendent work on this subject, "Applied Nutrition", Harold F. Hawkins, D.D.S., 1940, Second Edition, 1947, Lee Foundation, Milwaukee 3, Wisconsin.

TYPE 1	TYPE 2	TYPE 3
BLOOD – SALIVA – URINE CHEMISTRY		
– Calcium low. – Phosphorus high. – 75% of pyorrhea cases this type.	– Calcium low. – Phosphorus low. – 23% of pyorrhea cases this type.	– Calcium high. – Phosphorus low. – 2% of pyorrhea cases this type.
SYMPTOMATOLOGY		
– Congested gums with large soft tissue pockets and tendency to bleeding. – Flattening of alveolar crests. – Loss of density and cancellation of alveolar process. – Bone destruction in areas beneath soft tissue pockets. – Depressed alkalinity of saliva. – Calcium deposits above and below gum margin.	– Gum tone good; no congestion or bleeding; no open tissue pockets. – May or may not be gum recession but marked resorption of alveolar processes and general wasting of bone process. – Teeth extremely loose. – No tendency for salivary deposits.	– Gum tone good with possible slight irritation adjacent to tartar areas. – No soft tissue pockets. – Alveolar crests flattened. – Considerable salivary deposits.
ETIOLOGY		
– High phosphorus decreases saliva alkalinity, causes bone resorption while Vitamin C complex deficiency promotes gingival hemorrhage and invites infectious development of pus pockets and enhances salivary calculus deposition.	– Low phosphorus retains alkaline saliva and good mucous membrane. – Calcium is not mobilized. – Intake of Ca and P less than excretion.	– Failure to oxidize organic acids due to low thyroid activity. – Possible intake of too much magnesium or sulphur.
SUGGESTED NUTRITIONAL REINFORCEMENT		
– One or two teaspoons per day of raw process veal bone powder (in milk shake or in tomato juice, fruit juice or in breakfast cereal.) – Two tablets (5 grain) dehydrated solids of green buckwheat juice per day until all traces of gingival bleeding from tooth brush have been controlled, then one per day.	– Two teaspoons (heaping) per day of dehydrated raw process veal bone powder (in milk shake, fruit juice or tomato juice). – A little Vitamin D (as cod liver oil or concentrate from natural source) is important if patient fails to receive exposure to sun's rays. – Some Vitamin F by use of flaxseed meal in breakfast cereal (or concentrate from natural source) is also desirable, especially if patient gets too much sunlight.	– Two heaping teaspoons a day of raw process veal bone powder. – Buckwheat juice tablets 2 per day if gingival bleeding is present. – Blackstrap molasses 1 tablespoon in glass of hot water per day to supply potassium for displacing excess calcium in tissues. (preferably molasses made at temperatures below pasteurization to insure highest content of the phosphorus catalyst, the Wulzen Factor.) – See Journal of Biological Chemistry, August 1946, page 597.
PROGNOSIS		
– Improved blood chemistry reduces infection such that these cases can be carried many years beyond expectancy for instrument methods.	– No infection – Good recalcification if bone matrix is intact.	– Depends upon the infection present and degree of glandular and metabolic imbalance.

Edited by Royal Lee

LEE FOUNDATION FOR NUTRITIONAL RESEARCH
Milwaukee 3, Wisconsin

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