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# CORRECTABLE SYSTEMIC DISORDERS INDICATED BY PRESENCE OF SALIVARY CALCULUS

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## THEORY

Pyorrhoea alveolaris is not a disease, but is a single symptom of an organic disease resulting from one of two causes:

1. Reduced osseous density in which the bone fails to adequately support the teeth under the stresses to which subjected, with consequent osseous trauma, inflammation, infection, suppuration and exfoliation. This form of pyorrhoea is not here considered.
2. The more common form of pyorrhoea caused by the deposition on the teeth of calculus which results in local irritation of the periodontal tissues with sequellae as above described:
  - a) Serumal calculus, not discussed herein.
  - b) Salivary calculus, here considered, which causes the most common form of pyorrhoea and the loss of more teeth than all other causes combined.
    - 1) Salivary calculus is the result of a systemic acidosis resulting from glandular deficiencies that impair fat metabolism.

The presence of dental calculus in all cases of malignancy justifies the hypothesis that the acidosis causing the calculus also creates an environment encouraging activation of the etiological factor of malignancy, whatever that may be. Max Gerson, M.D., strongly confirmed this hypothesis. It is not here inferred that acidosis is the etiological factor of malignancy. This acidosis can be corrected.

## PREMISES

Both the medical and dental professions in general consider pyorrhoea alveolaris as a disease per se and treat it primarily from the local disease angle. That is wrong. Pyorrhoea is but a single symptom of a systemic disease caused by glandular abnormalities. Local treatment but reduces the obvious symptoms; it does not affect the basic systemic disease.

That which follows is based on observations during over forty years of general dental practice, and on over thirty years of special attention paid to certain aspects rarely if ever commented on in connection with dental calculus. First a bit of history.

A graduate in dentistry in 1918, for many years the writer observed the ordinary run-of-the-mill mouths as they passed in his practice, with

nothing to suggest anything but the generally accepted idea that calculus caused pyorrhoea and should be removed as required to prevent its doing so . . . and that was that.

Ten years later the writer initiated and established a Dental Staff in a County Hospital and served on it for some years, devoting to it a great deal of time and effort. He was well repaid by the knowledge thereby acquired.

For the first time he had opportunity to study patients in groups according to their problems. In the surgical ward with its high proportion of accident cases it was noted that while some patients had dental calculus, many others had none, even the elderly.

In the chronic wards came the enlightenment. Almost every patient therein had calculus, usually heavy, the majority having dentures on which calculus also deposited.

Conspicuous was the fact that without exception, every diabetic or cancer case had excessive calculus with resultant pyorrhoea and/or dentures in those of considerable age and frequently in the very young. The diabetics showed no dental caries.

In January of 1931 the writer enrolled in a long course of post-graduate study in dental nutrition under Harold F. Hawkins, D.D.S., at the College of Dentistry, University of Southern California. The above observations were mentioned to him and interested him greatly. He recalled a particular case in his own practice which fitted in with these observations. While time intervals and details are only approximate at this late date, his report was about as follows.

A lady presented herself to the Cancer Clinic of the Los Angeles County General Hospital being given a diagnosis of cancer of the cervix of the uterus. She was given a single radium treatment and directed to return after an appropriate interval of time for another such treatment. She did not return. Not long afterward she called on her dentist who noted excessive calculus and referred her to Dr. Hawkins for nutritional correction of that condition. This he accomplished and she was calculus free thereafter so far as he was aware.

However, a year or so after the radiation treatment she became sufficiently apprehensive that she returned to the Cancer Clinic for a check-up and further treatment. No evidence of cancer could be found, nor of the former presence of one. Records confirmed that there had been. Other members of the Clinic were called in to see the cancer case "that a single radium treatment had cured."

As a result of discussions with Dr. Hawkins and of his own observations the writer began close study of this problem. He had, and still has, special reasons for being concerned.

Both sides of his wife's family present extensive histories of

malignancies, with many deaths and surgical interventions as a result. A brief resume of known cases follows.

- 1) Father died of cancer of the prostate gland at 80 years of age. He had full dentures in his early twenties, resulting from pyorrhoea. Calculus formed on them rapidly.
- 2) Father's sister died of cancer at about sixty five years of age. She had had full dentures for many years, calculus forming on them rapidly.
- 3) Father's brother died of cancer. Also quite old, he had full dentures. History otherwise unknown.
- 4) Mother's twin sister died of cancer at age sixty five, had had full dentures some ten years as result of pyorrhoea. Calculus deposition of dentures was rapid.

This in contrast with the Mother who died at seventy eight years of age from a cardiac condition resultant from long sustained asthmatic condition. She had most of her natural teeth, no calculus, and oral condition good.

- 5) Another sister died of cancer at about eighty years of age. She had full dentures from an early age, result of pyorrhoea.
- 6) Another sister had a double mastectomy because of cancer. She had full dentures. History otherwise unknown.
- 7) Another sister had a single mastectomy because of cancer. She also had full dentures as result of pyorrhoea long previously.
- 8) A son of one of the sisters who died of cancer had a colostomy as a result of cancer of the rectum. Oral condition unknown.

The writer has been compelled to note the great difference in the families close to him. To the best of his knowledge no one on either side of his own family background, or siblings, has ever had a cancer, or had dental calculus with the exception of a short period of time in the case of the writer, to be discussed later.

With such a background the writer has naturally been concerned over the fact that his wife tends to form dental calculus. Discussion with Dr. Hawkins suggested a defective fat metabolism as being the etiological factor involved, probably a liver deficiency. Therefore, starting in 1931, the patient has been given ten grains of ox-bile after each meal. The result has been an almost total absence of calculus since that time. If she runs out of her supply of the bile supplement for two or three days she becomes depressed physically and mentally... she misses it badly. Another evidence of her need for it is that it has no other recognizable effect on her, certainly no deleterious effect, whereas a person with normal bile production would develop an ex-

treme diarrhoea from ten grains, in many cases such as the writer's from five grains of the ox-bile.

Since World War II it has been the writer's custom to ask any patient who showed calculus if he liked fat meat. (Exception: those who presented for emergency relief and did not become regular patients.) The answer by at least 90% of all patients questioned was "No", usually accompanied by "Ugh!". Of those answering otherwise further inquiry elicited the information that they liked bacon or other fat meat, if cooked crisp. In other words, they liked the matrix supporting the fat after the fat has been rendered out by heating. This accounted for another approximately 5%. The remaining 5%, including the writer's wife, actually have liked fat very much, on beef steak, lamb and mutton chops, etc., as soft juicy fat.

Shortly after World War II the writer attended a meeting in San Diego of the local chapter of the American Academy of Applied Nutrition. The guest speaker was an endocrinologist from the Los Angeles area. During a short break in the program the writer asked the speaker if he had noticed any relationship between an inability to assimilate fat and the liking for it. "Oh yes", he replied, "I am a case in point. My liver does not produce an adequate amount of bile and I ordinarily do not like fats. However, if I take bile supplements I find myself liking fats very much."

Apparently old Mother Nature takes the attitude that when ingested fats are not assimilated and so disagree with those using them, she will create a dislike for them, which she seems to do in most such cases.

From Dr. Hawkins the writer gathered the following impressions that explain what occurs in this syndrome.

There appears to be in certain fats a factor, let us call it factor F for simplicity, which controls the selective function of the kidneys in selecting from the blood stream the acid wastes of life's processes, and eliminating them via the urine. When factor F is not adequate in the diet the acid waste is not eliminated properly. It remains in the blood stream to result in a systemic acidosis; the saliva in turn being made from that more than normally acid blood, precipitates solids on the teeth in the form known as dental calculus.

This factor F does not appear to be in vegetable fats, pork fat, or some others. It is present in beef, mutton and poultry fats, and probably in whale, seal, walrus and other animal fats of the arctic, as Eskimos and others using such fats have been reported as being quite free from dental calculus.

This desirable effect of factor F is not evident:

1) In the absence of fats containing it. Example: The only time the writer ever had any calculus on his teeth was while in the Pacific

theatre during WW-II. The nutrition available to the Navy at that time was atrocious, and the small amount of meat available was conspicuous by its almost total absence of fat. The considerable calculus which resulted disappeared shortly after the writer returned to the United States and a better diet.

2) When fats containing factor F are not assimilated even if present in satisfactory amounts, for several reasons all believed to be glandular in origin.

Inasmuch as the disease of which calculus is a symptom is a systemic one the writer has felt that it deserved the attention of physicians with full responsibility in that field. Rarely is one found, however, who is even able to recognize the relationship of cause and effect, much less do anything to correct the situation.

However, it is the writer's custom to refer a patient with calculus to his personal physician before taking any action toward attempting to correct the condition. Results of such references being almost universally nil, the writer had become a "crack-pot" in the minds of most local physicians.

Not of all, however, because of two exceptions, both too competent to remain in general practice and make use of their knowledge along these lines. One received a scholarship in nuclear medicine under Lawrence at the University of California and now specializes in that field. The other left general practice to specialize as owner-operator of a pathological laboratory.

The results of cooperation by the latter physician, before he specialized, follow:

In January, 1954, a 42-year-old housewife came to the writer for her first dental appointment with him. She had heavy calculus formation, her past routine having included its removal each ~~week~~ January. The importance of its elimination was explained to her and she was referred to her family physician for correction of the glandular condition causing an impaired fat metabolism. It was suggested that if he did not understand what she desired he should call the writer by telephone. She asked, to this effect, "Doctor, could that be why at 42 I feel like I was 60? I like to garden and yet have insufficient energy or ambition to do so. I tire so easily."

She was told that it would be unsafe to say definitely that there was such a relationship between the acidosis and tiring and that correcting the former would terminate the latter. There could be too many factors involved. But she was further told that it was a possibility.

She went to her physician. The writer had not expected to hear from him. Few physicians will condescend to query a dentist. But this

man is of high character and did call, asking what the writer had in mind. The problem was explained. He remarked that the whole idea was a new one to him but that he would run some tests and look into it.

Less than one month later the patient called to express her thanks for referring her to her physician. She reported that already she felt so much more energetic and like her old self that she was very happy. Shortly after that her husband ran out of a store to intercept the writer and thank him for the big change in his wife's well being.

The following January revealed not to exceed 10% of the amount of calculus found the previous January. The entire mouth was in good shape and the patient was feeling very well. She reported that the physician had her on a routine of two pills; one very small which he told her was a light dose of thyroid extract, and a larger one of which she did not know the composition. The writer told her he would wager it was bile in some form.

It was felt that the Doctor should know of his results so he was called by telephone and advised. He was pleased, naturally, and said that the large tablets were bile salts, the small ones thyroid extract. In view of the relationship of the thyroid gland to liver and other glandular functions of the endocrine system, that was a logical procedure.

Each year since then the patient has been found almost free from calculus. In January, 1963, only one point of calculus was found, and that by bite-wing x-ray examination, not by the scaler. It was in a deep pocket between maxillary molars, a pocket of long standing. That a local acidosis in the deep area might be responsible for this one point of calculus cannot be ruled out, at least by the writer.

The writer has numerous patients who, by the use of ox-bile, have materially reduced and in some cases apparently completely eliminated calculus formation.

The writer's practice in these cases is as follows: When the patient's physician has found nothing wrong the writer prescribes ox-bile, gr. V, two tablets to be taken after each meal. However, precautionary instructions are also given. If a diarrhoea results from taking two tablets the dose is to be reduced to one after each meal. If diarrhoea persists treatment is to be discontinued, the diarrhoea indicating an excess of bile and disproving a bile deficiency. If the use of bile does not result in diarrhoea the diagnosis of bile deficiency has been confirmed, and the procedure has been a safe, simple and inexpensive diagnostic measure.

In almost every case where two tablets cause diarrhoea, one tablet also does.

When diarrhoea results some other cause for the impaired fat metabolism must be sought. It may be a deficiency of pancreatin, as

in the case of diabetics. The use of pancreatin as a supplement has given no beneficial results as used in such cases by the writer. In such cases, as far as the writer knows, a graduate of the Page Foundation could undoubtedly give the best diagnosis and treatment so far available, regardless of etiology.

## MALIGNANCY as related to DENTAL CALCULUS

Since about 1932 the writer has been watching for a case of confirmed malignancy that did not present dental calculus. He has not found one, nor does he expect to. That is not proof, but is highly suggestive, of the relationship between the two as discussed here. The writer has not seen all malignancy cases, of course.

Apparently the late Max Gerson, M.D., recognized the relationship of liver dysfunction to cancer, and by correction thereof was able to prevent and cure cancer. In one of his articles he had deplored the fact that Nature gave no warning of malignancy.

The writer had roughed up a report to Dr. Gerson, similar to this report but less voluminous, showing that Nature did give a warning that a condition did exist in which malignancy could develop, and in the absence of which it could not; before forwarding it he learned of Dr. Gerson's death, a great shock.

The writer is convinced that the preceding information justifies a concentrated and dedicated research into these matters:

- 1) The cause of dental calculus (perhaps also of serumal calculus).
- 2) The relationship of the cause of calculus to malignancies.
- 3) Through these relationships the procedures for the correction of the glandular processes of the body to the end that calculus cannot form, and in turn malignant processes cannot develop or proceed.

The writer, a dentist, is not qualified to proceed further than to point out the above observations. Proper research would require participation by research specialists in several of the branches of the healing arts. The writer is not one of these.

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