Boosting Diabetes Control Through Oral Care Transcript

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Introduction to Oral Health and Diabetes

The most prevalent disease of humankind actually is a gum disease. How do you even tell this? Special for the, NYC high patients. Simply, just do, what we call deep scaling route planning or phase one gum therapy.

Or we can drop at least one person point in terms of NYC without changing any other, medical treatment. This is doctor talks. Welcome to another episode of Reversing, your type II Diabetes Summit 2.0.

This is your co-host. Doctor Will Hsu, and, I had the pleasure of introducing a friend and a colleague of mine. Also by the same last name is Dr. Hsu.

No relations, but, the friendship, if you will. And, Doctor Hsu is a ultimate professional. He's a dentist, who has been seeing patients, of, from all over the places and with all kinds of backgrounds for many, many years.

So, I'm going to let Doctor Hsu, introduce himself. Dr. Hsu, hi. How are you? Good morning everyone. My name is Yin Hsu. Yes. Doctor Hsu said, as a matter of fact, I'm a very long time patient of Dr.

Hsu's, so I kind of the whole career, I'm, growing up with Doctor Hsu as well. So, personally, I'm, I got my first dental education from Taiwan, so I, I immigrant to this country, pretty much after my graduate education and then I renew and update my dental license here, study a little bit about public health, and then I start practicing.

Also, teaching part time at Tufts Dental School in Boston. My main concern, my main interests start out with just, restoration. How to rehab the patient and technology with all kind of advancements.

We get a lot of, fantastic replacement of the damage. But again, you know, after you keep on doing those mechanics. And also we see patients regularly and then you realize that some aura condition, you know, it's not just a replacement.

We have to get down to, the root cause and then, of course, the dental speaking, two major condition. One is dental caries, one is gum disease. That's why people are concerned.

And then, specially under, the, the gum disease, disease front art, perspective, because at least 50% of our population come to dentist regularly. So I think by being doing this for more than, you know, 25, almost 30 years, you can see the progression of a patient's or a condition.

And plus, just like any other things, it goes up and downs. It has seasonal, you know, things.

Gum Disease, Inflammation, and Systemic Risk

He has patients personal life change things. A lot to do with, patient, lifestyle. And and then we found out, because the, the most prevalent, disease of humankind actually is a gum disease.

Pretty much. We're thinking that more than two thirds of American population suffer from so-called gum disease, but they are a precursor of that which is the gingivitis, which is much more prevalent.

And then, so when you have those, low grade inflammation in or on the gums, if you scratch your gone tissue, flat, that's equals, to the size of your palm, if you think about that, if you wash your hands, your palms start to bleed.

I think that's kind of shocking, but that's what happens every day in the dose. A little minor inflammation. And that recent, study even tell us special for the, NYC high patients if simply, just do, what we call deep scaling rule planning or phase one gum therapy, we can drop at least 1% point in terms of NYC without changing any ordered,

medical treatment.

So that's that tissue. Yeah. That was so helpful. As in sort of kind of the the opening for us and, for a lot of our listeners, they may not even be aware of this link between oral health and systemic health.

Maybe we start with that. Why do people with diabetes, have to worry about their gum? Are they at a higher risk for developing, oral health challenges?

Yes, absolutely. If you have those low grade inflammation on the gums, we know for sure it's going to really increase C-reactive protein. Also, you can think about that a little bit more, I mean, simply to look at, our gum tissue, our semi-permeable membrane.

So it's actually the first contact of the environment. And then if we if we have a lot of inflammation, that will increase the permeability of the, that membrane.

And then a lot of just like a leaky gut, I think the leaky gut, to start off with the mouth and then you have more of a problem to the exposure and then, more, inflammation and those inflammation, as far as I understand, understood.

The system is circulation. Go through your mouse probably every 20 minutes. You think about that. Keep on being all those inflammatory cells all over the body.

Very interesting. Right. So you you've mentioned that the oral cavity is actually the beginning of the GI tract. Right? So, so the leaky gut, the actually it starts with the mouth.

And yeah, that's an interesting concept. Now you mentioned CRP earlier just for our listeners sake. That's a inflammatory markers. So you're saying that because there is leakage between, or there if there is a transfer of these inflammation in the mouth gets transfer into the system.

Yeah. So, so, well, if you don't take care of your mouth, the inflammation of the mouth may go into becoming inflammation in the body. Is that is that what you're saying? Yes.

Yes, absolutely. And then there are numerous, evidence showing that, proper oral hygiene maintenance daily can have a good, preventative effects on the cardiovascular disease.

Today we even talk about potentially Alzheimer. Of course, we just mentioned about A1. See, I think they're all in the same part. I think, you know, there are so many factors.

I think I think that basically, as he sings, we have the system set up in this country wonderfully. Everybody should should utilize their access to their dentist, at least get their gums checked and then, including something very always ask the dentist, how is my, periodontal pockets look like?

Dental Checkups, Pocket Depth, and Deep Scaling

Okay, how much, area of Americans are bleeding or those are the indication in general, we don't want pockets more than five millimeters deep. And then in general, we don't want 30% and above of your, your, your gum area.

That's bleeding on touching. Probing by the dentist. So that's in general that's we consider that that's a healthy status. This is actually really interesting. Right.

So, what we're saying is that there is a convergence of, of health care providers, including the dentists participating in the whole body health. Right?

So, so now dentists not only are caring for people's mouth, but now there is a relationship to systemic health. And this is actually astounding. Now, Doctor Sheila, I've always known you to be a pioneer.

I have known you to be an innovator in your own space. But do your other dental colleagues, aware of this systemic oral, relationship or this is something that that people need to seek out, specific dentists for?

I think, in general, I mean, identically, a colleague, well aware of this, general condition, but there are some breed of dentists like myself probably like to spend a little bit more time in terms of patient's general condition, including their mental condition, including, I think most important is their their diet condition, because, I see to myself, an older generation, I mean, when we were in Taiwan, receiving the dental education, this very important part is about diet, counseling, diet analysis.

When that first came to this country, went to went back to school updating, my degree. That was in the, early, early 1990s. I think we have a full semester of, nutrition.

But today, I think they, they decrease down to maybe just a few hours. Unfortunately, that's too bad. I think we're actually seeing that. We're actually seeing that in medical school as well.

This is such a and this is, this is a bad trend. Yes, yes, I think I think because we have so busy into those mechanics things, you know, we, we know we can do a lot with the disease population.

But then we are treating the disease instead of a treating for the health. That's a little bit concerned. So is there a category of dentists? I mean, how do you how would you describe yourself as a, you know, the dentist that, not only focusing on the mechanical, sort of, solutions, but also addressing the systemic health and nutrition, the aspect, is there a category or maybe there isn't.

There isn't, but I hope there's something called, integrative dentistry. But I already heard that coming up, just like the integrative medicine and, actually, we we should we know our own stuff, but we also should be more concerned and learn about other fields of the medical, you know, contributions.

And then so the, the my main goal is to see my patient being healthy. I think that's the most fulfilling part of my career is not so much in the how many holes can I drill in this patient.

I always who is my patient there? Let's watch this holes to see if we can maintain that and then not getting bigger and not needing a root canal eventually.

So I think that's, just a, my personal, also is my calling as well. So. Yeah. So that's a such a refreshing thought here. So let's come back to, to kind of the relationship between diabetes and periodontal disease.

You've mentioned earlier that it's it's truly a bi directional relationship. Right. So people with diabetes have high risk for developing periodontal disease. Yes.

And on the other hand, higher or more severe periodontal disease actually would elevate, patients blood glucose. Is that a fair statement? Yes. Can you maybe address the a little bit about why is there such a connection there?

Why do people with diabetes have higher periodontal disease. So, basically, you, you, you have more inflammatory, components in your system. And also, I, you know, I have to including myself, a long term diabetic patients.

I know that, sometimes our food choice, you know, not only can effects our A1. See, our metabolism also effects our oral flora, which is the bacteria in the mouth.

And on top of that, if you have the initiation of the inflammation, the gums start to get swollen and then the pocket gets deeper and then you become more anaerobic bacteria in the mouth.

And we do think that that has something to do with, the shifting of the whole microbiome in the digestive system. I think the rest probably know about that.

So and then, what we want to do in the mouth is, you know, I wish that we can take out a whole cardiovascular system and, and do a cleaning, but, one day we can do that, but at least we can clean our teeth, right?

So true. And then that's so true. Yeah. And then maybe help our body a little bit. So, and then I think, and also, I think a lot of diabetic patients probably, you know, frustrated with their, their whole, mental, health as well.

Sometimes they're just not eating correctly. And then, also the dry mouth and, you know, also dehydration, dry mouth also facilitate the gum inflammation as well.

Especially today we have, on top of that, a lot of, upper airway restriction, because of the environmental allergy.

Nutrition, Sugar, and Fasting-Mimicking Diet

So those all contribute to dry mouth. Dry mouth also facilitate the gingival inflammation. So you become a malicious, cycle and then very much so. Yeah. We have to break it.

Yeah. Yeah. For sure. So so let's, get down to the basics. Okay. He is among our listeners. There are many people who live with type two diabetes. How often should they see their dentist?

By the way, there are surveys, in the US that says people actually see their dentist more often than they see their doctor. So. So inside, we've become kind of, the primary care health care provider.

Yes. For many people. So how often should they go and what do they do when they go to you? So, so in general, I mean, most of the people that have dental, benefits or insurance benefits have somebody call the insurance company recommend every six months.

But actually that's not evidence based. But we don't know for sure very interestingly that we that, quote we found zero study probably in the, early 2000, they found out that, the A1, c nine and ten patients for decades, and then the, the endocrinologist has done everything, including their medicine, insulin whatsoever.

They they couldn't lower it if they suffer, if they suffer from gum problems. Let's see. Simply just go through a deep scaling cycle, what we call phase one periodontal therapy.

They can drop the A1 C by 1% and that in fact lasts about three months. So which and all the study pointing to the frequency should be three months for the high risk patients, especially the periodontal in the diabetic patient.

They should have that unless they are so well maintained. As I said, do your bleeding areas less than 30%. Their dental pockets are less than four millimeters.

Then those people we consider that just as healthy as general public. They should go every six months. That's fine. So, their insurance that covers more than twice, dental cleaning insurance will cover three times.

And I think that coming out a consumer I would highly recommend, you know, the consumer need to ask for it and then but, in general, if the, the patients, I hate to use the word qualify because insurance should not dictate what are you know what I meant the medical behavior.

But if we think that the patient is on the higher risk, for example, they are periodontitis patients. Usually insurance will cover, every three month.

So after in general go by like if you did, deep scaling and then they will cover every three months, which is evidence based. Now you use the term deep scaling is so scary.

Well what's the what is that involve. So basically what happens is you think about that if we just clean your teeth, everybody had an experience. Sometimes you may be a little sensitive, but usually those area you have some gum recession and then so what I'm talking about if you're mashman the pockets more than for actually hygienist has a

hard time going deeper than for without hurting you.

That's why we want to actually put a little bit local anesthesia. And usually we do, you know, half the mouth at a time and then so, so that's why we give the term, deep scaling.

I totally agree with you. Change that verbiage because it sounds not very welcoming. And then, in the dental term, we call that phase one therapy, per down.

So basically I think every the general public, they should always ask their dentists, how is my pocket today, how is my bleeding condition. And usually we would tell a patient another thing about you, I control how well they brush their teeth.

And then, my personally, I, I really goes for what they eat because, sugar probably is one of the, the thing that. So basically what you can do oral hygiene, you can do the fluoride treatment.

But most effective way of, preventing dental caries especially is actually sugar restriction. So that today, if you tell the patient don't take candy is so old.

So I think that's what, I'm so in love with this fad and this, fasting, mimicking di concept. And I think those are very, very good, treatment not only for the general health.

And that's actually the most effective way to reduce dental caries. So you're telling that you're talking about a sort of a, innovative nutritional approach.

And you mentioned the fasting mimicking diet. Maybe we go there for a few minutes. Tell us a little bit about what is fasting mimicking diet? It seems like a little bit of a contradictory fasting.

And then there is a Di in there. Right. So basically what happen is this, let's just talk about sugar and Kerry's. I think we are more effect. I mean, more damaging is not how much sugar you take at a time is how frequently you do.

So that's interesting. Interesting concept. Yes. Of course, if you take too much sugar, we talk about simple sugar that definitely baffle your metabolism, loading of their system. But, just give you an example.

I think I to 1940s, 47, to be exact. The diet counseling is a very important, intricate part of the dental education. Something happens in 1945, the great discovery of fluoride.

I think it's like a discovery of the insulin of a century. They change the behavior of the dentists no longer. We are telling the patient not to take candies.

Would you say do fluoride? So, I think fluoride at best reduce dental caries about 50%, but sugar restriction can be as effective to 80 to 90% of a caries reduction.

And so, so and it's very hard to tell a patient not to have candy, almost like, you know, patient won't take that. Oh, that's an old, old record. I heard that before.

Well, I think you look at today's diet, I think the most, convincing to me is FMD, because FMD doesn't have any sugar in it. And also give your body a chance to really, loosen up the inflammation, I think.

I think that for because of restriction and selection of the food during that that time of a fasting week, you actually improve your gum health, although that's anecdotally the, people when people are doing that kind of thing, they actually take care of their general health and including oral health as well.

Yeah, it's very interesting because intermittent fasting right now, it's all the rage. Right? There's been a huge popular popularity. Right. It's estimated that more than 10% of, of Americans is doing some sort of fasting, right?

Practical Advice for Patients and Closing Remarks

This, this fasting mimicking diet. And so it's quite a fascinating innovation. It's essentially nutrition, precision nutrition that gives you the benefits of a five day fasts.

So you're actually not fasting, your fasting. You're getting the benefit of fasting while probably getting some nutrients. This whole area of fasting, I think, it, there's actually a study the Dr.

Hsu that I know of that is looking at, the fasting mimicking dyes effect on periodontal disease. That's actually, being carried out at the moment. So, so now it looks like the field of dentistry of medicine is coming.

All, you know, even more closer together because the mouth is part of the body. And, you know, I think our society or our medical discipline kind of split the tube.

And in fact, there should be I mean, there is definitely, connection, in the end. And so, so let's summarize a little bit about about our discussion so far that there is a bidirectional relationship between periodontal disease and type two diabetes.

People with type two diabetes have higher rates of periodontal disease. And people with periodontal disease, happen to have to to have to have higher A1 seal blood sugar.

So this relationship must be broken. And, and I say Dr. Hsu you mentioned that seeing the dentist more often, for surveillance, for dental cleaning, if necessary.

Deep cleaning or deep, scaling, as you call it, that would be would be important. So I'd like to finish off by, really focusing on the nutrition, back, to, to this very important thing, nutrition has the benefit of improving their public health, but also improving periodontal disease.

But dentists are busy, right. How do you impart that education in your practice, especially on nutrition, fasting and etc.? When do you have the time to talk to patients about it?

In oral practice, usually, I have a lot of reference on my bookshelf, so that's a first introduction of my practice. And second, I really, just like yourself every time I went to see you, we came up with an action plan.

And I'm sure that most of dentists give a patient action plan, too. But in my action plan is also includes about, nutrition because, you know, as much as you probably know more than I do, you know, a lot of people has, you know, taking SSRI, taking all kinds of medications, and a lot of times they just need to reset their nutrition.

They may be helping their sleep, helping, the general health. And then especially I think I learned from you last time in your summit, you said that average it.

The insulin resistance problem is longer than 15 years before your metabolism start to show symptoms. I think the dentist can play a big role on that.

When we see a lot of uncontrolled gingival inflammation that you couldn't explain, maybe we'll have to think about that. Is there some components of insulin resistance in it that that contribute?

I think it's all about prevention. And and then so that's just I think that's what I think. Yeah. That's know that issue. Our listeners who who is living with diabetes, what advice would you give him or her?

When the, when, when our listener goes to to to the dentist, what should the listen do what should where should the listener ask? Yes, definitely. They want to ask, how much inflammation I have in the mouth.

All right. As I said, two very simple thing. We call that a bleeding, probing, which you shouldn't be bloody. You know, you wash your hands of me bloody wash.

We do a gentle cleaning. Cleaning? That shouldn't be bloody as well. How much is that? That you need to ask the dentist or hygienist? Second, we should ask again.

You want to ask the charging of the the pair down their pockets? Most of the, I think should be 100% of dentists should provide that information. Look at your pockets.

You can look at those two red numbers. Those red numbers. You should see more than four. Which is millimeters. And then you should ask and then so what can you do about that.

And then if, if people have those two, you want to see if you can qualify for four times or three times, and you're cleaning stat for two, which is just, the tradition, insurance, coverage.

And I think that's the basic thing that we should do. And then, if your dentists happen to be into the nutrition, which I know plenty of them, they they they like to talk about that because it's in our blood.

You know, we need to talk about nutrition. We just don't know what to do with it. And I think today we have the technology like the FMD. Like this some this about I think, I think that's a tool that we should use.

And then in my practice and then the moment that I talk about autophagy to talk about renewal, because gum is a part of the skin, you know, it's a good fit in.

I'm pretty sure it's going to go for the gums. And that good point. And then, maybe people don't see their organs. You said that as part of the skin. They want to look younger and younger, you see as well.

So I think many of my patient was interested doing the same thing. Oh, what an interesting concept. Yeah. Every dentist who tried to do it and do it with the whole office staff, that's what we are doing.

So keep the the staff, are losing weight. They're looking better. You know, everybody say, what's the secret? And there you go. That's amazing. Doctor Hsu, what a what a inspirational this, discussion that we've had and so helpful as well.

Very practical. Right. So our listeners, if when you go to see your dentist, if you if you haven't made sure you go and ask these critical questions, Dr.

Hsu if, if our listeners want to look up, your information and look up, your, your type of practice that you have. And by the way, where are you? Anyways, I'll, I currently my practice in downtown Boston, looking at the Boston Commons.

And then my office is called Soffit Dental Group, which is, the location in Suffolk County. So we do have a sutterdental.com as a website, or people can contact me with my email, which is my name.

yinhsudmd@gmail.com. And then you probably can, we we are adopting a new system, on the website that I can't have a direct conversation with. Maybe, well, you make yourself so, so accessible.

Thank you. Doctor. Hsu you're one of a kind. So, our listeners, thank you. This will conclude our, today's episode, Reversing your type two Diabetes. Summit 2.0.

Thank you. Thank you. Happy fasting. Thank you for tuning in to Doctor Talks. We hope today's episode has enlightened and inspired you on your path to optimal health.

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