Preventive Dentistry
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We're gonna talk about caries risk assessment, How to plan our therapy and any diet advice in the clinic.
The idea of caries risk assessment (CRA) is it's gonna help you as a dentist for a better individualized oral health care for the pt. so we need to have an idea about the frequency and the type of oral health. Risk of a disease depends on the frequently we see the pt and the time of procedure. So CRA may be for the individual but it also benefits the community.
CRA is also related to the 1- habits of the pt like diet and OH, so It's a behavioral aspect. CRA doesn't stay the same, it can change according to the circumstances, so we assess the caries risk every time we see the pt.
CRA : high, moderate or low.
The thing we look for in CRA is past caries experience, and the economical status is a powerful indicator. Medical history and OH is important too, in addition to diet,2- microbiology and saliva.
About 3- past caries experience is simply when u look at the pt's mouth and u see multiple restorations and carious lesions, that would be a sign that there might be a strong association and more possibly he'll have caries in the future. So if it's a primary dentition then once the 6's start to erupt we're gonna need fissure sealant and diet sheet, along with OH and fluoride application.

DMFS: is a count of the number of: decayed, missing, filled tooth SURFACES in a persons mouth.
DMFT: is a count of the number of: decayed, missing, filled TEETH in a persons mouth.
deft: is a count of the number of decayed, extracted, filled TEETH in a persons mouth.
(Bs2lo 3nhom bl viva)

White spot lesions on teeth are an indication of poor OH, and is related to the gingiva and may cause bleeding.
Economic status is also an indicator, parent's occupation or education, and the OH of the siblings give u an idea, lower social class usually gets the higher caries risk.

Medical history:
The disease or the drug may cause an increased risk, like Xerostomia which increases caries prevalence, Medically compromised or disabled children may be uncooperative and harder to maintain their good OH. Also those who're on long term medications, sometimes their whole life, the sugar added to these medications increases the risk. Plaque is also an imp risk factor. In young children (up to 6) there's a poor manual dexterity and may find it difficult to brush on their owns.

It's also imp to perform a diet sheet analysis. Combining diet sheet and OH maintenance will give u a better association to caries than what each would do individually.
Type of bacteria is imp too, Streptococcus Mutans (initiation), Lactobacillus (progression).
Yeasts aren't involved in the caries process but because the flora is acidic and yeasts love acidic environment, so a lot of acidity will increase yeasts in the mouth.
There're actually commercial packets by which u can measure the amount of yeasts in the mouth, give u the number of colonies, they're very expensive and certainly aren't for the daily use.

So these were the factors that help us in CRA, we don't use one or two of those, usually we depend on a combination of them.

The problems arise when knowing that CRA changes with time, e.x. very young child and u cannot see any caries, so we may depend on other factors to determine CRA.

The best CRA depends on the dentist himself, with experience we're gonna do a correct prediction of the risk without checking all these factors one by one, it comes with time.

Sometimes a single tooth might have a different caries risk that the rest, like a deep fissure on that tooth or hypo mineralization or crowding ( interproximal areas, food accumulation), in that case u might need to give OHI specifically for that tooth, Fluoride, diet, fissure sealant.

I want to identify where the pt's going wrong, not brushing for instance. We also may wanna ask him are u living in a fluoridated area? To determine whether to give them fluoride gel or smth. Also recommend ur pts to brush twice daily. So about fluoride they have to be given one systemic fluoride source, not more than one.. for example they live in a fluoridated area, no need for fluoride supplements.

Diet sheet:
Eating is a habit that's very difficult to change, so the earlier we start controlling the child's diet the easier it'll be to change it.
Evidence-based Dietary guidelines (according to the UK):
u have to make ur diet advice personal, coz u wanna motivate ur pt and monitor the changes, and make sure u get a detailed history, and intervention should be individualized. Diet sheet isn't something u give to anyone, and u wanna make ur pt know how imp this is to him and to his family.
So what are the stages of dietary advice? U need to get a good medical (cardiovascular, bleeding, medications like insulin in the diabetic pt) and social and dental history, know his eating habits and look for methods to improve it, and then u analyze it and give the advice to ur pt. certain diseases requires special diet and here u cannot give the pt a diet advice without knowing what should be done. Diseases like phenyl ketone urea, or celiac disease, they need a sugar diet for their general health and here we cannot intervene but u can refer him to a general practitioner to help u with that.

chronically ill pts who're on long term medications, the problem here is that most medication have sugar in it to make its taste better for children, contact the pt's physician for a sugar-free alternative.

When u're stressed ur diet becomes a total mess. So u look for a diet that will keep u energetic and alert, like caffeine and sugars, this also goes on people who works long hours or in night shifts, so they keep snacking under stress. This increases the risk.

The next step is determining the eating habits, u can do for example 24-hour recall, so u ask ur pt what did u eat yesterday but this would be inaccurate and u're only asking about one day, and this isn't enough to know his eating habits, another thing, they will never till a dentist that they've had three cups of Pepsi! So the best way is a 3-day diet record including one day weekend. Motivate ur pt and let him know how imp is that, and show him how to fill it.
After u received the feedback from the pt, praise him for filling the form :P and start ur analysis. U saw he drank a cup of tea or coffee, and u ask him if he added any sugar and how much. And if he ate a 'sandwich', ask him was it a cheese sandwich or jam or honey…
Diet analysis shouldn't be done in front of the pt, u look for the no of meals a day, is he getting a healthy diet or not.

**Diet analysis :**

done away from your patient ,the things that we look for is:

 -Number of meals/day

 -Number of snacks/day

-How many of these contain NME"non milk extrinsic" sugar, we need to know the frequency

-Was a sugar containing food eaten within 1 hour before bed time, this is important ..why??during sleep we have low salivary flow so no clearance of food.

an example :

|  |  |  |
| --- | --- | --- |
| Quantity | Type of food  | Meal  |
| 1 cup  | Tea with 2 sugar & milk | Breakfast  |
|  | At nursery, mother doesn't know  | Lunch |
| 1 cup | Tea with 2 sugar & milk | Afternoon snack  |
|  | Corn flakes with milk & 1 sugar  | Supper |

what do you think about this diet ?

it's not a healthy diet ,no fruit, vegetables ,protein also we have a lot of sugar ,so we have to address these things.

Diet advice :

-it has to personal "directed to specific person"

-practical "don't him to do impossible things like (no sweet at all)

-positive "it's the most important one" don't make him feel bad ,be nice & don't be mean.

they don't have a knowledge but now they have so be nice & always look for something nice to say.

so praise first then start with simplest advice like avoiding sugar containing food 1 hour before the bedtime ,if the pt says that he brush his teeth before going to sleep ,so what is the benefit of this advise ??

cuz even with brushing we don't remove the whole plaque so we try to avoid the sugary snakes before sleep & reduce the intake .

suggest healthier alternative :

fresh fruits ,raw vegetables,yoghourt ,milk ,sanwish like (cheese ,peanut butter,butter),crackers,bread sticks, plain popcorn.

**In Scandinavia** they do what is called ***Saturday sweet days*** :) they ask their children to accumulate sweets during the weeks(buy sweet & save it ) & eat it on one day (weekend)

so the aim is to reduce the frequency of sugar exposure without inducing a feeling of resentment.

sometime it's a bit complicated like :-

- in child with special diet or with very strange eating habits .

-patient' s home circumstances are difficult to control .

in these situation u need to refer them to GP or dietician.

conclusion:

1-your diet advice should primarily aim to reduce the frequency & amount of sugary food & drinks consumed & should be in accordance with general diet guidelines

2-dietry history should be taken to identify the pattern of sugar consumption & locate the problem.

3-you should agree with the pt. on the best means of reducing sugar consumption.

4-progeress with dietary changes should be monitored, see the pt. again in term of recall & if u can't do it alone u might ask the help of GP or dietician.

so for high caries risk pt. :

-fluoride (1 systemic & any # of topical method )

-fissure sealants (if 6's are carious so 7's need a fissure sealant ,if one of the 6's is carious u need to see the other 6's )

- OHI & use of disclosing agent to help u in giving the instruction.

-recall interval 3 month

-diet advice

in the next semester we will discuss the topic of **chlorhexidine as an :**

**- antibacterial agent (broad-spectrum,bactericidal)**

**-used to reduce level of Streptococci in saliva & plaque ,it's usually used in periodontal disease but since it's an antibacterial agent u can actually use it as fluoride varnish & gel .**

Best of luck

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