ACFF DEBATE:
SHOULD CARIES NOW BE REGARDED AS A NON-COMMUNICABLE DISEASE?

Radisson Blu Royal Hotel – Brussels, Belgium
Wednesday, July 1st, 4.30 pm – 6.30 pm
Cárie: Deve, a partir de AGORA, não mais ser considerada uma Doença infecciosa e transmissível?

"Should caries NOW be regarded as a non-communicable disease?"

Debate promovido pela ACFF (Alliance for a Cavity-Free Future) como atividade pré-congresso da ORCA, Bruxelas, 01/07/2015

1- Temos feito aqui várias postagens sobre esse tema argumentando que cárie não deve e não pode ser considerada uma doença infecciosa e transmissível

2- A ORCA (European Organization for Caries Research) discutiu esse assunto durante simpósio ocorrido dia 10 de setembro em Bruxelas (slide 1).

3- Antes das 3 apresentações foi feita uma votação eletrônica e enquanto 40% dos presentes responderam YES cárie não deve ser considerada uma doença comunicável, 38% votaram em NO, ela dever ser considerada uma doença transmissível.

4- Terminada o simpósio, foi feita nova votação (slide 2), desempatando a opinião pelo YES, cárie não deve ser mais considerada uma doença comunicável. Coerentemente, 76% responderam que o entendimento deles sobre o assunto melhorou após o debate.

5- Argumentos a favor de não mais considerar cárie uma doença transmissível foram apresentados pelos 3 conferencistas em forma diferencial (slides 3, 4 e 5), mas os mais convincentes foram os do Dr Marsh (slide 6).

6- Há + de 20 anos esse tem sido nosso posicionamento no Brasil, cárie não pode ser considerada um doença transmissível, conclusão essa mostrada nesse último slide do prof Phil Marsh (slide 7).

Esse conceito já deveria ter sido há muito tempo revisto de forma consensual porque ele parte de premissas equivocadas que obviamente nada contribuem para o controle de cárie. Como temos discutido (slide 8) a única maneira de controlar uma doença infecciosa e transmissível seria pelo uso de antibacterianos ou vacina e esse não e o caso da cárie.

Ora, cárie é uma doença dependente do acúmulo de bactérias nas superfícies dentais (fator necessário, mas não suficiente) e do consumo frequente de açúcares da dieta (fator determinante negativo), principalmente sacarose, o verdadeiro e intocável vilão! Culpando as bactérias...até quando vamos nos deixar enganar por esse doce amargo?

A partir de AGORA? **Antes tarde do que nunca!**

"Better late than never!"

**Refs:**


**Autor:** Prof. Jaime A Cury
Is caries a Communicable disease?

The resident oral microbiota is diverse, natural and beneficial to the host. On occasions, this mutualistic relationship breaks down, and disease occurs.

Dental caries involves the demineralisation of teeth by acids produced from the bacterial metabolism of dietary sugars. The microbial composition of the biofilm overlying a caries lesion differs from that found on sound enamel, with increased numbers of mutans streptococci, lactobacilli, bifidobacteria, Scardovia, and others. Properties linked to cariogenicity include rapid acid production and tolerance of the acidic conditions generated; however, these are general traits of bacteria that generate energy from carbohydrates.

Caries can occur in the apparent absence of the species described above, while these species are also detected on sound enamel, albeit in lower numbers. The repeated exposure of healthy biofilms to dietary sugars, and hence to low pH, favours the growth and metabolism of these acid-producing and acid-tolerating bacteria, causing dysbiosis and increasing the risk of demineralisation.

It will be argued that the lack of absolute specificity in the microbial aetiology of dental caries, the absence of precise virulence factors, together with disease resulting merely from an ecological perturbation to the resident oral microbiota, suggests that caries is not a classical communicable disease.

PROF. PHIL MARSH
School of Dentistry, University of Leeds
Is Caries a Non-Communicable Disease (NCD)?

It is right that evidence underpins and drives policy making. Yet despite the evidence of the global burden of dental caries and its recognition in paragraph 19 of the UN Political Declaration on the Prevention and Control of Non-communicable Diseases, it remains a neglected area of global health.

In addition, the sustainable development goals (SDGs) are catalysing the reframing, reorienting and recalibrating of key sectors including health and education. The proposed SDG indicators and targets are seeking to reinforce this alignment and are focused on measurable outcomes.

How should those working in oral health and dentistry respond to this evolving policy agenda?

WHO in its health policy and systems reader calls for “a better understanding of the politics of health policy change the actors and interests driving the processes through which policies are developed and implemented contributes to understanding how to influence policy and take action to strengthen health systems”.

For oral health policy to deliver sustainable changes there must be an understanding of the linkages between the domains of policy, education, research and health service delivery and quality of care.

DR. JULIAN MARCUS FISHER
Hannover Medical School
What are the implications for prevention across the Lifecourse?

The oral biofilm is individual and may shift throughout the life-course. The first years of life are decisive for the establishment and composition of the oral biofilm; the mode of delivery and sequence/timing of exposure to various bacteria may affect the prevalence of oral diseases later in life.

Numerous reports have provided evidence that early colonization of aciduric bacteria, such as mutans streptococci, can be linked to ECC and emerging technologies how to prevent this have been applied. For healthy school-children and non-compromised adults with mature biofilms, an individual risk assessment of the potential ecological stress can form the basis for targeted measures to prevent dysbiosis or reestablish a stable diversity.

On population level, fluoride use and increased awareness on the detrimental effects of repeated dietary sugars is important for all age groups according to the common risk factor approach. In frail elderly, the biofilm stress often comes with reduced saliva flow and impaired ability for oral cleaning. Some practical examples on preventive measures following the non-communicable concept will be provided.
Should caries now be regarded as a non-communicable disease?

A. Yes  76%
B. No   15%
C. Unsure  8%
Should caries now be regarded as a non-communicable disease?

<table>
<thead>
<tr>
<th>Features of a communicable disease</th>
<th>Communicable disease</th>
<th>Dental caries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Microbial aetiology is diagnostic of disease</td>
<td>YES</td>
<td>NO</td>
</tr>
<tr>
<td>‘Pathogen’ is present in health</td>
<td>NO</td>
<td>YES / OFTEN</td>
</tr>
<tr>
<td>‘Pathogen’ satisfies Koch’s postulates</td>
<td>YES</td>
<td>NO</td>
</tr>
<tr>
<td>‘Pathogen’ produces specific virulence factors</td>
<td>OFTEN</td>
<td>NO</td>
</tr>
<tr>
<td>Disease is transmitted person-to-person</td>
<td>YES</td>
<td>NO</td>
</tr>
</tbody>
</table>
CONCLUSION

• Dental caries is NOT an example of a CLASSICAL communicable disease

• This should be reflected in appropriate PREVENTION measures
Bactérias

1. É cárie uma doença infecciosa?
   a) As bactérias que provocam cárie não são estranhas a boca de nenhuma pessoa!
   b) Elas são adquiridas do meio ambiente onde as crianças vivem!
   c) Não há uma espécie bacteriana única responsável por cárie.

2. É cárie uma doença transmissível?
   a) As bactérias adquiridas não provocam doenças.
   b) Maus hábitos são sim “transmitidos”!

Como evitar uma doença “infecciosa e transmissível”
   a) Antibacterianos! ; Vacina!!!