Journal Club

15th Dec 8PM (GMT)

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Expert nutrition and health learning

Dr Caroline Elizabeth Childs BSc (Hons) PhD RNutr

Lecturer in Nutritional Sciences at the University of Southampton

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Dr Gemma Walton

Lecturer in Metagenomics, University of Reading

@gemmaewalton

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The common cold – could probiotics help? Journal club

Gemma Walton

Probiotic bacteria reduced duration and severity but not the incidence of common cold episodes in a double blind, randomized, controlled trial

Michael de Vrese, Petra Winkler, Peter Rautenberg, Timm Harder, Christian Noah, Christiane Laue, Stephan Ott, Jochen Hampe, Stefan Schreibere, Knut Hellerf, Jurgen Schrezenmeira

University of Kiel, Germany

Gemma Walton

Introduction

- Probiotics and Upper respiratory tract infections
- Mode of action
  - Microbial
  - Gut associated lymphoid tissue
- Causative agents

Methodology

- Double-blind
- Placebo controlled
- Randomised
- Parallel study

- 454 non vaccinated participants 18 - 67 years
- Looked at over two different periods

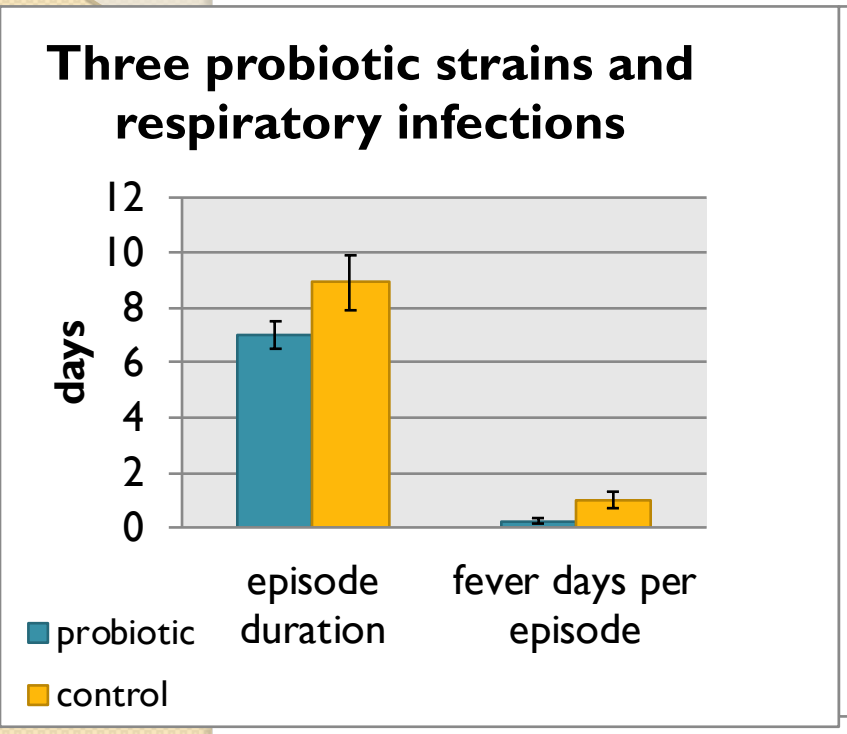
Treatments

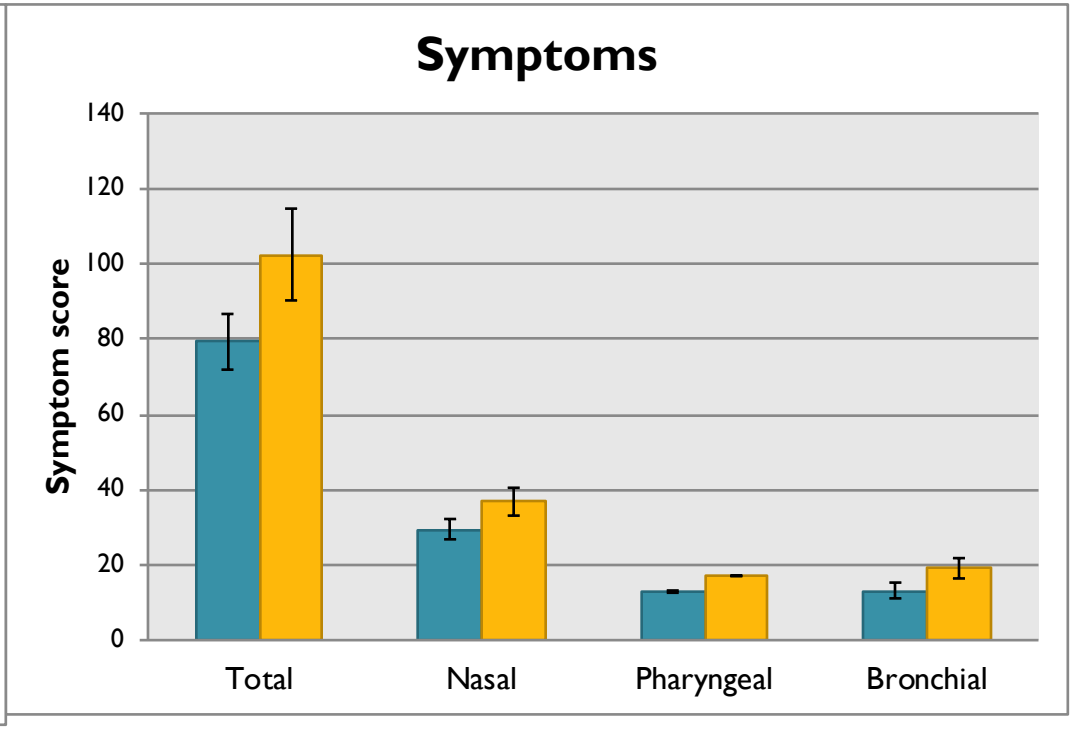
- Probiotic
  - *Lactobacillus gasseri* PA 16/8
  - *Bifidobacterium longum* SP 07/3
  - *Bifidobacterium bifidum* MF 20/5
  - Vitamins and minerals
- Placebo
  - Vitamins and minerals

Methodology

- Self reported symptoms
  - Nasal
  - Pharyngeal
  - Bronchial
- Flow cytometry
  - Immunological surface markers?
  - (122 participants)
- Virus identification

Results


Three probiotic strains and respiratory infections
12
10
8
6
4
2
0
days
episode duration
fever days per episode
probiotic
control


Symptoms
140
120
100
80
60
40
20
0
Symptom score
Total
Nasal
Pharyngeal
Bronchial

Results continued…

- 95 swabs – 24 were identified as viral
- Increases in faecal bifidobacteria and lactobacilli (control not reported)

- Increased CD8+ expression in probiotic group
  - Role in cytotoxic signaling

  - No intervention to challenge immune system

Conclusions

- Shorter duration
- Less symptoms
- Changes driven in part by immune system

Good points

- Over 200 volunteers in each group
- Both groups had vitamins and minerals
- Probiotic strains are defined
- Symptoms scored on a wide range of factors
- Health related end point

Not so good points

- 2 periods of time – (from other paper clear both treatments at both times)
- Information in places not as well characterised in this paper
- Symptoms – self reported
- Wide age range
- No challenge to the immune system

My thoughts

- A good paper
- Well considered
- Encouraging results supporting previous and later research

Journal Club

Thank you for joining

Did you benefit from tonight's journal club?
Please share your thoughts on social media

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