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The influence of a dietary advice on recurrent upper respiratory tract infections in children: a randomized controlled trial.

Ellen van der Gaag^{1,2}, Ruben Brandsema^{3,4}, Job van der Palen^{3,2} and Thalia Hummel³

¹Hospital Group Twente, Hengelo, Netherlands,

²University Twente, Enschede, Netherlands,

³Medical Spectrum Twente, Enschede, Netherlands and

⁴University Medical Center Groningen, Groningen, Netherlands

Abstract

Introduction

Since there is no treatment for children suffering from upper respiratory tract infections (URTI) without immunological disorders, we searched for a possible tool to improve the health of these children.

We evaluated whether a dietary advice including standard supportive care, can decrease the number and duration of URTI compared to standard supportive care in children aged 1–4 years with recurrent URTI.

Material and Methods

Design: A multicenter randomized controlled trial, with an intervention group receiving the dietary advice plus standard supportive care and a control group receiving standard supportive care alone.

Setting: 3 Outpatient clinics in The Netherlands (urban and rural).

Patients: 118 Children aged 1–4 years with recurrent URTIs.

Intervention: A dietary advice consisting of five times per week green vegetables, 3 times per week beef, 300 mL whole milk per day, whole dairy butter on bread every day. Portion sizes are age appropriate. The intervention lasted for 6 months.

Results

Children in the intervention group had 4.8 (1.6–9.5) days per month with symptoms of an URTI in the last three months of the study, compared to 7.7 (4.0–12.3) in the control group ($p = 0.03$). The total number of URTIs during the study period of 6 months was 5.7 (± 0.55) versus 6.8 (± 0.49) respectively ($p = 0.068$). Total use of antibiotics was markedly reduced in the intervention group ($p = 0.034$), as well as the visits to the general practitioner ($p = 0.031$), therefore possibly reducing healthcare costs.

No adverse effects were observed in the lipid profiles, nor in growth parameters (weight, height, BMI).

Discussion and conclusions

This study shows a reduced number of days with symptoms of an URTI following a dietary advice consisting of green vegetables, beef and whole dairy products. It did not significantly lower the number of infections. No adverse effects were observed.

Registration: This trial is registered in the Dutch Trial Register, NTR4898, www.trialregister.nl.

Conflict of Interest

There is no conflict of interest