Effect of vitamin D3 supplementation during pregnancy on risk of persistent wheeze in the offspring: a randomised clinical trial

Chawes, Bo; Bonnelykke, Klaus; Stokholm, Jakob; Heickendorff, Lene; Pedersen, Susanne Brix; Rasmussen, Morten; Bisgaard, Hans

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twenty patients given needle acupuncture sessions by a rate same as laser group and group C (control group) under their asthmatic medica-
tions only. Assessing of the clinical condition of the patient (frequency of attack and severity of asthma) and laboratory (IgE level and Eosi-
ophil count) before and after the study.

**Results:** Frequency of asthmatic attack diminished in group A (p < 0.001) more than in group B (p = 0.002) and least in group C (p = 0.147) at the end of the study. Clinical severity of group A significantly improved (p < 0.001) than group B and C, IgE level were significantly improved in both groups A and B (p < 0.001) better than changes occurred in group C (p = 0.057). Eosinophilic count showed more significantly improvement in group A (p < 0.001) than group B (p = 0.206) and group C (p = 0.784).

**Conclusions:** Application of laser acupuncture sessions beside medi-
tcal treatment results in more significantly improvement of the asthma frequency of attack, the degree of asthma severity, IgE level and eosin-
ophilic count in asthmatic children than the use of needle acupuncture or medications used only.

**Table 1 Summary**

<table>
<thead>
<tr>
<th></th>
<th>Well controlled</th>
<th>Partly controlled</th>
<th>Uncontrolled</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of patients</td>
<td>99 (37 %)</td>
<td>102 (38 %)</td>
<td>68 (25 %)</td>
<td></td>
</tr>
<tr>
<td>eCO (ppm)</td>
<td>3.21 (SD: 1.15)</td>
<td>4.88 (SD: 2.60)</td>
<td>5.55 (SD: 2.49)</td>
<td>P &lt; 0.0001</td>
</tr>
</tbody>
</table>

**Table 2 Summary**

<table>
<thead>
<tr>
<th></th>
<th>Controlled</th>
<th>Partly controlled</th>
<th>Uncontrolled</th>
<th>Significant relation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patients number</td>
<td>99 (37 %)</td>
<td>102 (38 %)</td>
<td>68 (25 %)</td>
<td>–</td>
</tr>
<tr>
<td>number (male/ female)</td>
<td>(51/48)</td>
<td>(62/40)</td>
<td>(36/32)</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>11.13</td>
<td>11.23</td>
<td>10.97</td>
<td>p &lt; 0.05</td>
</tr>
<tr>
<td>FVC%</td>
<td>94.53</td>
<td>94.06</td>
<td>94.74</td>
<td>p &lt; 0.05</td>
</tr>
<tr>
<td>FEV1%</td>
<td>95.29</td>
<td>92.24</td>
<td>91.57</td>
<td>p &lt; 0.05</td>
</tr>
<tr>
<td>FEV1/FVC</td>
<td>88.24</td>
<td>85.68</td>
<td>85.41</td>
<td>P &lt; 0.05</td>
</tr>
<tr>
<td>FEF25–75 %</td>
<td>94.82</td>
<td>85.95</td>
<td>86.65</td>
<td>P &lt; 0.05</td>
</tr>
<tr>
<td>eCO/ppm/</td>
<td>3.21</td>
<td>4.88</td>
<td>5.55</td>
<td>P &lt; 0.05</td>
</tr>
</tbody>
</table>

**OP09**

**The concentration of exhaled carbon monoxide in asthmatic children with different controlled stadium**

Papp Gabor, Biro Gabor, Kovacs Csaba

Szigetvár Hospital, Szigetvár, Hungary

**Correspondence:** Papp Gabor

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**Introduction:** The exhaled carbon monoxide is an important bio-
marker of the oxidative stress and the airways inflammation. Most scientific publications account of increase values in asthma. How-
ever our known literature does not have data on the relationship between different stadiums of asthma control and the exhaled carbon monoxide values. The aim of this study was to access this correlation.

**Method:** Our patients are well controlled, partly and uncontrolled asthma bronchial children, who are treated in outpatient clinic. Each of them has treatment according to GINA protocol. Before spirometry, patients were made deep inhalation, then they were made slow exha-
lution to the carbon monoxide measure equipment. (PICO + Smoker-
lyzer) The exhaled carbon monoxide values were only known by the assistant, so that these values wouldn’t influence when putting in a cat-
egory. We made the statistic by InStat softver. We used non-parametric procedures.

**Results:** We found significant differences between the groups of well controlled and group of partly or uncontrolled in concentration of exhaled carbon monoxide, but significant difference was not demon-
strable between the group of partly controlled and group of uncon-
trolled (Table 1).

**Conclusion:** According to our investigation/examinations the exhaled carbon monoxide is significantly higher in partly or uncon-
trolled stadium of asthma bronchial than in well controlled stadium of asthma. This higher amount of exhaled carbon monoxide values show the raising of airways inflammation and the finish of well con-
trolled stadium. The exhaled carbon monoxide suggests the inflam-
mation aspect of asthma bronchial. Detailed analysis of our results shows that the eCO can be used to estimate the compliance of patients (Table 2).

**OP10**

**Effect of vitamin D3 supplementation during pregnancy on risk of persistent wheeze in the offspring: a randomised clinical trial**

Bo Chawes1, Klaus Bannelykke1, Jakob Stokholm1, Lene Heickendorff3, Susanne Brox3, Morten Rasmussen1, Hans Bisgaard1

1Danish Pediatric Asthma Center, Gentofte Hospital, University of Copen-
hagen, Gentofte, Denmark; 2Department of Clinical Biochemistry, Århus University Hospital, Århus, Denmark; 3Department of Systems Biology, Center for Biological Sequence Analysis, Technical University, Lyngby, Denmark

**Correspondence:** Bo Chawes

*Clinical and Translational Allergy* 2016, 6(Suppl 1):OP10

**Introduction:** The use of Vitamin D3 supplementation during pregnancy may protect the offspring against preschool wheezing, which is the most common disorder in young children.

**Objective:** To determine whether supplementation of Vitamin D3 during third trimester of pregnancy reduces the risk of persistent wheeze in the offspring.

**Design, setting and participants:** The study was a double-blind,

**Results:** Occurrence of persistent wheeze at age 0–5 years diag-
nosed solely by the intervention-blinded study pediatricians strictly adherent to a predefined algorithm based on 11 scheduled and addi-
tional acute clinic visits and a day-to-day symptom diary filled by the

**Main outcome measure:** Persistent wheeze at age 0–5 years diag-

**Conclusion:** The use of Vitamin D3 supplementation during pregnancy did not reduce the risk of persistent wheeze in the offspring.