Assessment of Infant Formulae Based on Partially Hydrolysed Proteins

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Authors’ contributions

This work was carried out in collaboration among all authors. The opinion has been assessed and approved by the Panel on Food Additives, Flavourings, Processing Aids, Materials in Contact with Food and Cosmetics of the Norwegian Scientific Committee for Food Safety. All authors read and approved the final manuscript.

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ABSTRACT

The regulation of infant formulas is under revision, including the national restriction on sales of infant formulas with partially hydrolysed proteins to pharmacies only. In December 2007 the Norwegian Food Safety Authority requested an opinion from the Norwegian Scientific Committee for Food Safety on infant formulas with partially hydrolysed protein. The opinion should cover an evaluation of risks associated with the replacement of conventional infant formulae (based on intact protein) by infant formula based on partially hydrolysed protein, including a specification of the risks associated with the consumption of infant formula based on partially hydrolysed proteins among infants with cow’s milk allergy. Furthermore, the opinion should include an evaluation of the...
preventive effect from formula with partially hydrolysed proteins on development of cow's milk allergy.

To complete this task, VKM has established an ad hoc group that has prepared this report. The Panel on Nutrition, Dietetic Products, Novel Food and Allergy has discussed and adopted this opinion.

The main conclusions are that although no studies show that partially hydrolysed formulas have negative effect on growth, measures should be taken in order to avoid that partially hydrolysed formulas replace regular infant formulas in the general population. Hydrolysed proteins have a high absorption rate, and ingestion of hydrolysed proteins have been shown to increase gastric emptying and plasma glucose-dependent insulinotropic polypeptide relative to the intact protein forms.

Feeding partially hydrolysed formulas to infants with cow's milk allergy constitutes a risk of eliciting an allergic reaction which in worst case may be fatal. The risk that an infant with cow's milk allergy will receive partially hydrolysed formula may increase if the products are sold with claims such as reduced risk towards cow's milk allergy and reduced risk of developing cow's milk allergy together with ordinary infant formula outsides pharmacies.

The risk of developing cow's milk allergy is not shown to be reduced by introducing partially hydrolysed formula instead of regular formula during the first 4-6 months. There has not been demonstrated any preventive effect from hydrolysed formulas after the age of 6 months on the development of allergic disease.

Keywords: VKM; assessment; Norwegian Scientific Committee for Food Safety; hydrolysed proteins.


NOTE:

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COMPETING INTERESTS

Authors have declared that no competing interests exist.