Effects of A2 milk and hydrolysed lactose-free A1A2 milk on inflammation and gastrointestinal symptoms

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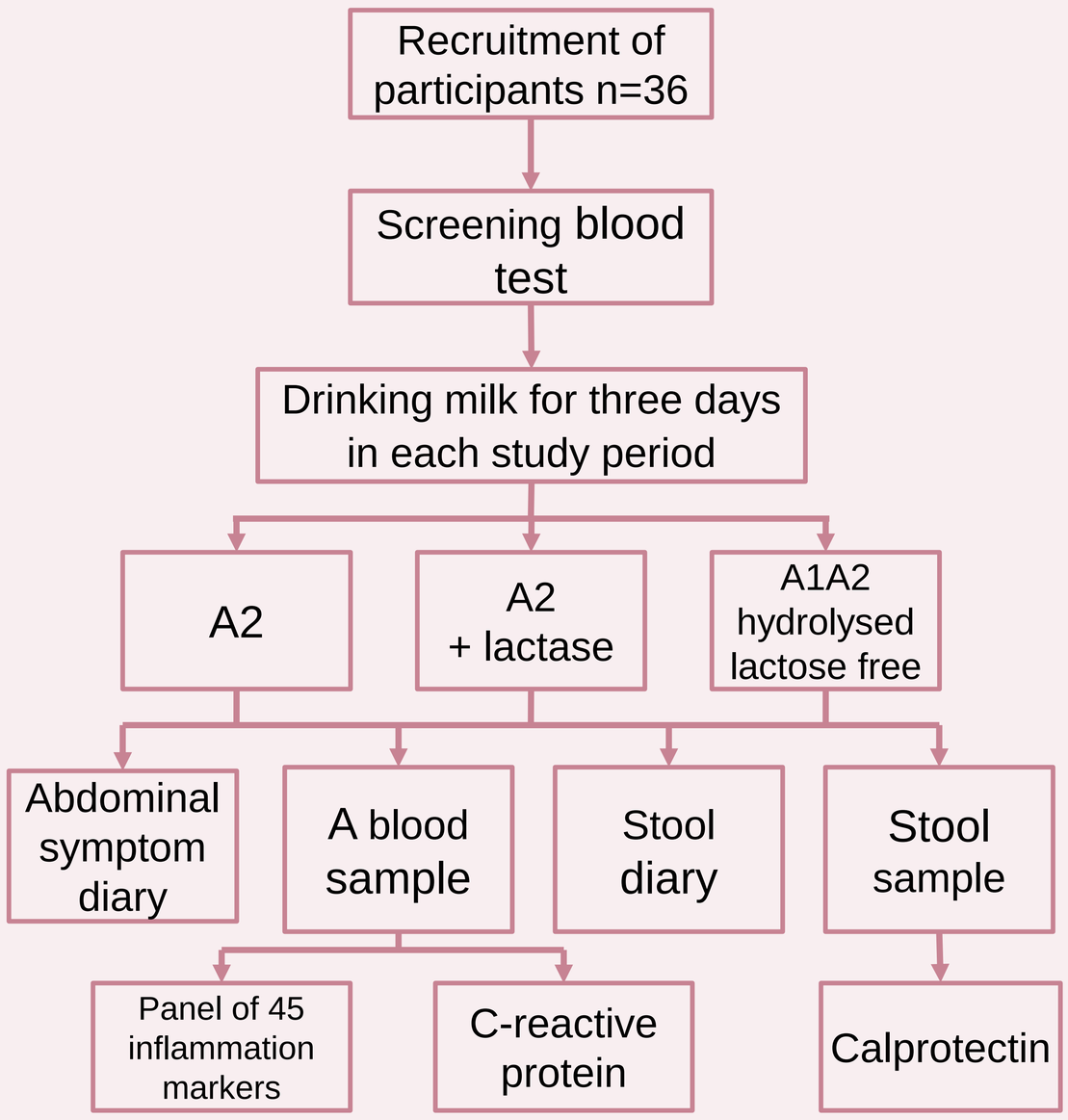
Intoduction

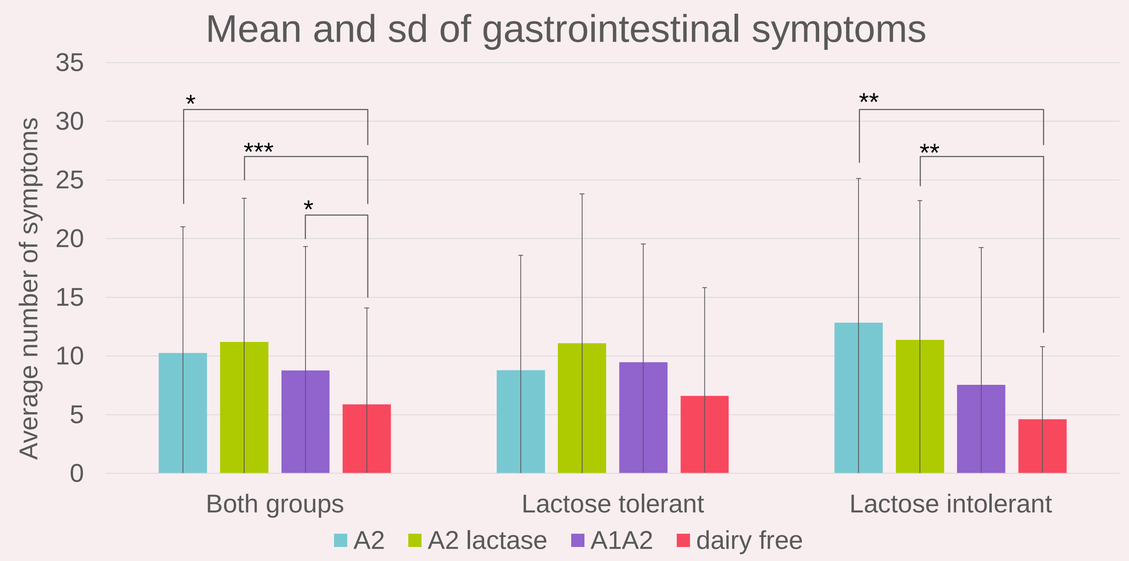
Milk is an essential part of many people's diets, but it can cause gastrointestinal discomfort for some individuals. In addition to lactose, there are indications of different intestinal behaviors between milk A1 and A2 caseins. The breakdown of beta-casein derived from A1 phenotype milk can produce a compound called beta-casomorphin-7 (BCM-7), which may cause inflammation of the intestines and changes in motility. BCM-7 molecule is not formed as much from A2 milk. Furthermore, the protein hydrolysis of milk, where milk proteins are broken down by enzymes, alters the digestion of proteins in the digestive tract.

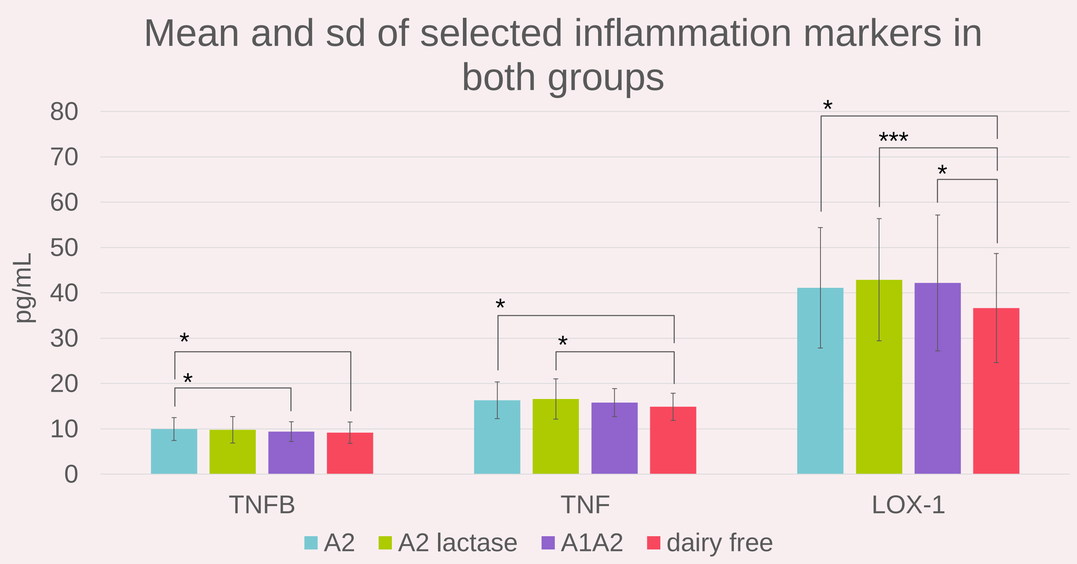
The aim of the study was to study the effects of protein-hydrolyzed lactose-free milk containing both A1 and A2 forms, A1A2 milk, and milk containing only the A2 form (A2 milk with or without lactase supplementation) on perceived gastrointestinal symptoms and inflammatory markers.

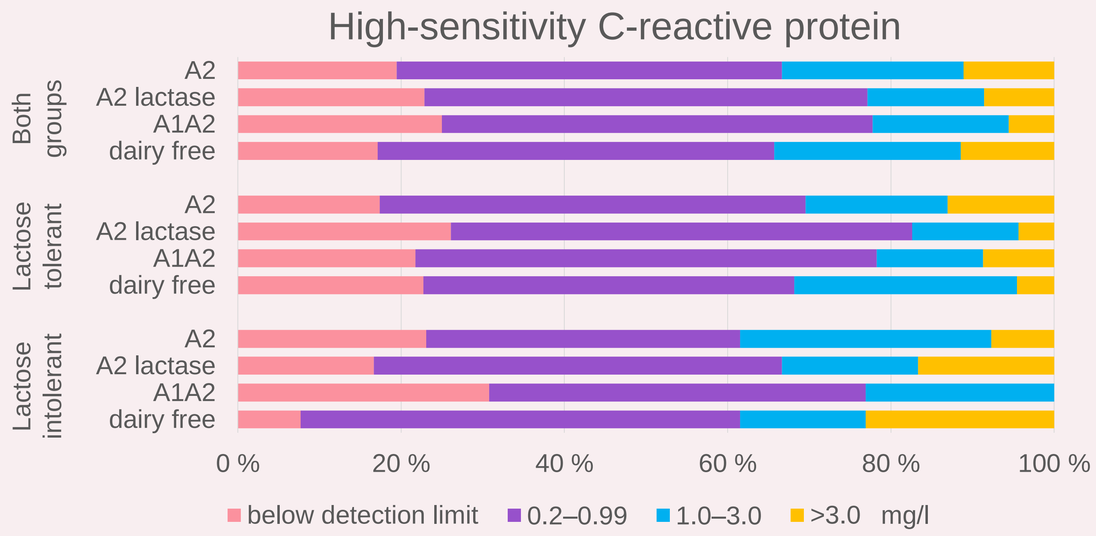
Materials and Methods



Selected results







Conclusions

Overall, more symptoms were perceived during milk periods than during dairy-free period.

In lactose intolerants, lactose-free milk did not cause significantly more symptoms than dairy-free diet.

Hydrolyzed lactose-free A1A2 milk is as well or better tolerated as A2 milk.

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References

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Laatikainen, R., Salmenkari, H., Sibakov, T., Vapaatalo, H., & Turpeinen, A. (2020). Randomised controlled trial: Partial hydrolysation of casein protein in milk decreases gastrointestinal symptoms in subjects with functional gastrointestinal disorders. Nutrients, 12:7, 1–11.