

Honey sports drink vs. commercial sports drink - with which you ran further?

Jarmo Heiskanen

Liikunnan ja kansanterveyden edistämissäätiö LIKES

Pasi Ikonen

University of Jyväskylä, department of sport biology/LIKES

Ari Seppälä

Finnish Beekeepers Association

Study aim

We wanted to study from honey sports drink:

1. User experience and tolerance
2. Physiological effects compared to control drinks with athletes



Recipes of compared drinks / dl

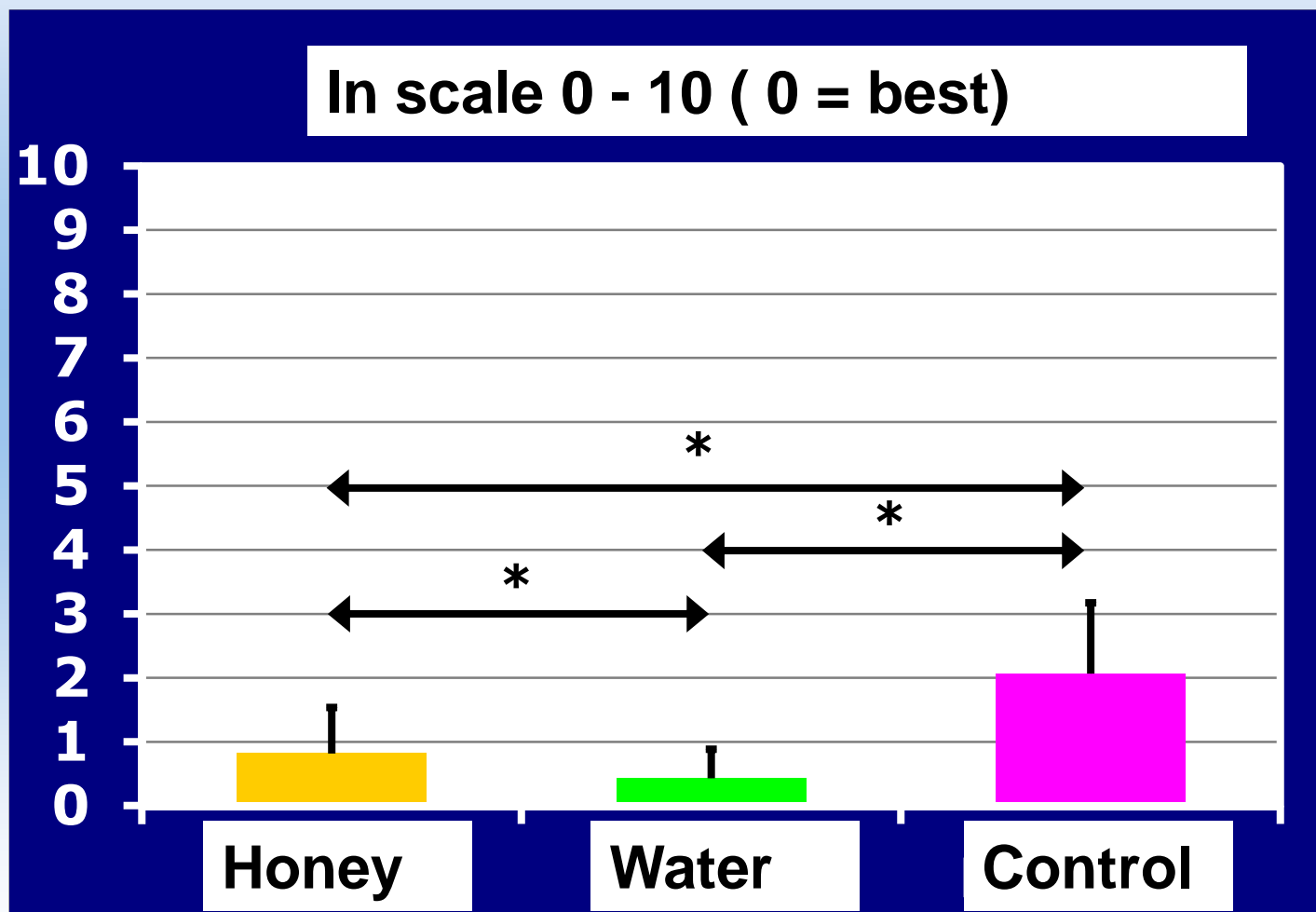
- Honey sports drink:
 - Carbohydrates 6,5 g: 40 – 45 % fructose, 45 – 50 % glucose and rest other sugars
 - Natrium 27 mg
 - Potassium 32 mg
 - Lemon juice ~3 ml (for taste)
- Water:
 - H₂O
- Commercial sports drink:
 - Carbohydrates 5,6 g: glucose and maltodekstroose
 - Na 50 mg



Physical loading

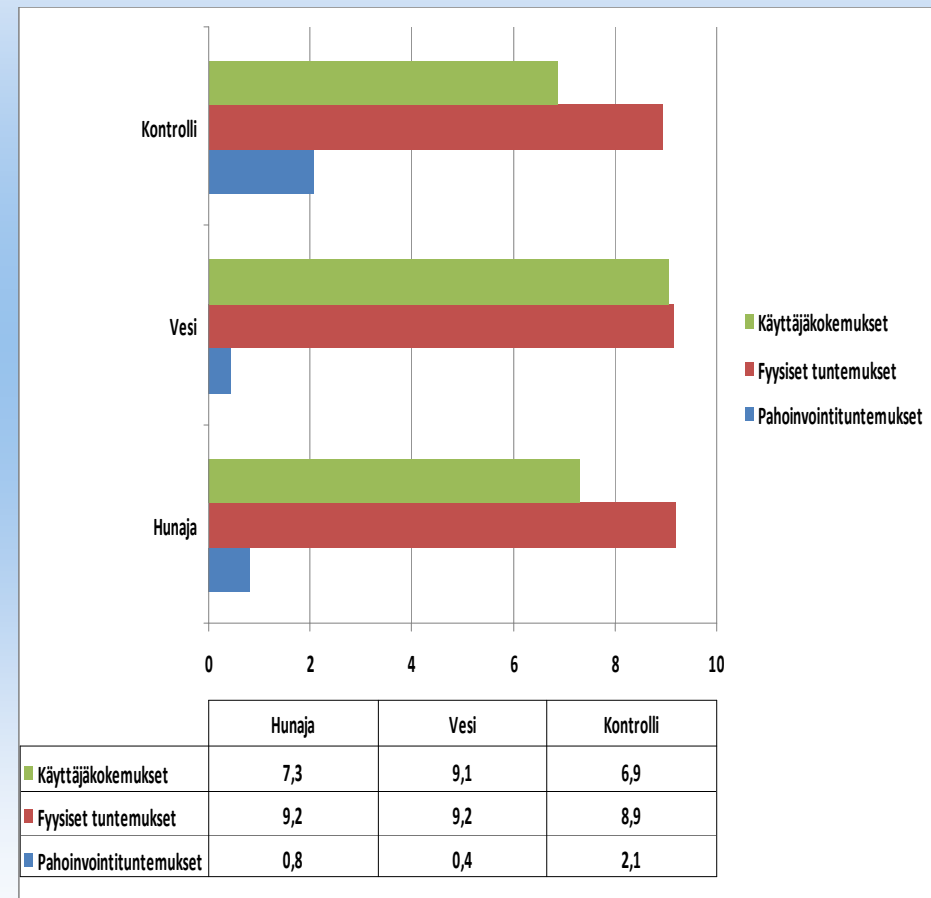
- Drinking in all: 1,5 dl before start and at every 15 minutes
- Running, 90 min (at aerobic max level) 10 test persons
 - Weight before and after
 - Amount of urine
 - Pulse
 - Blood samples
 - Questionnaire about feelings
- Bicycling, 75 min (at aerobic max level) 8 test persons
 - Weight before and after
 - Amount of urine
 - Measurement of breathing gases
 - Pulse
 - Questionnaire about feelings

Nausea feelings, running ,

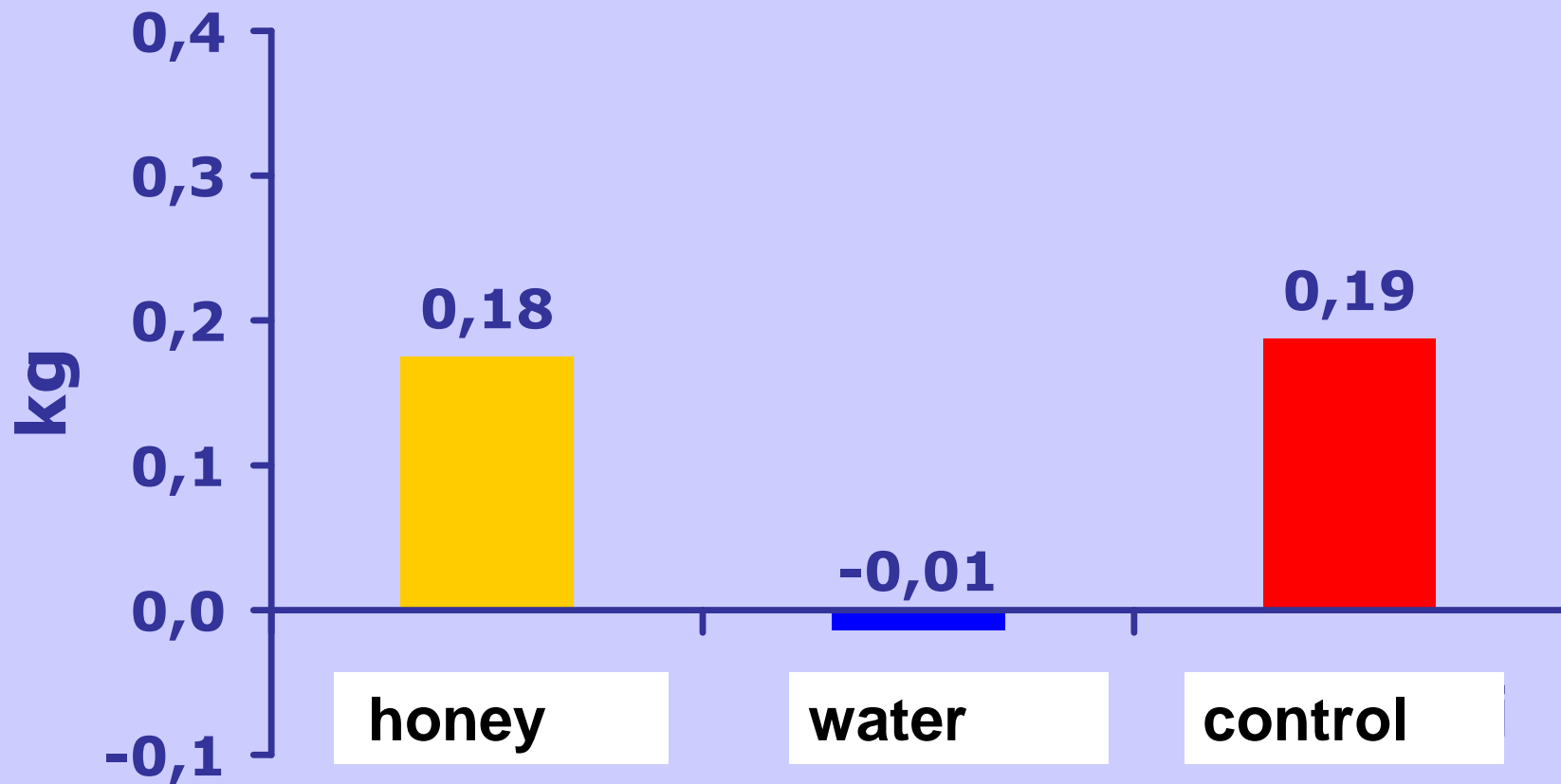


Main results from questions; running

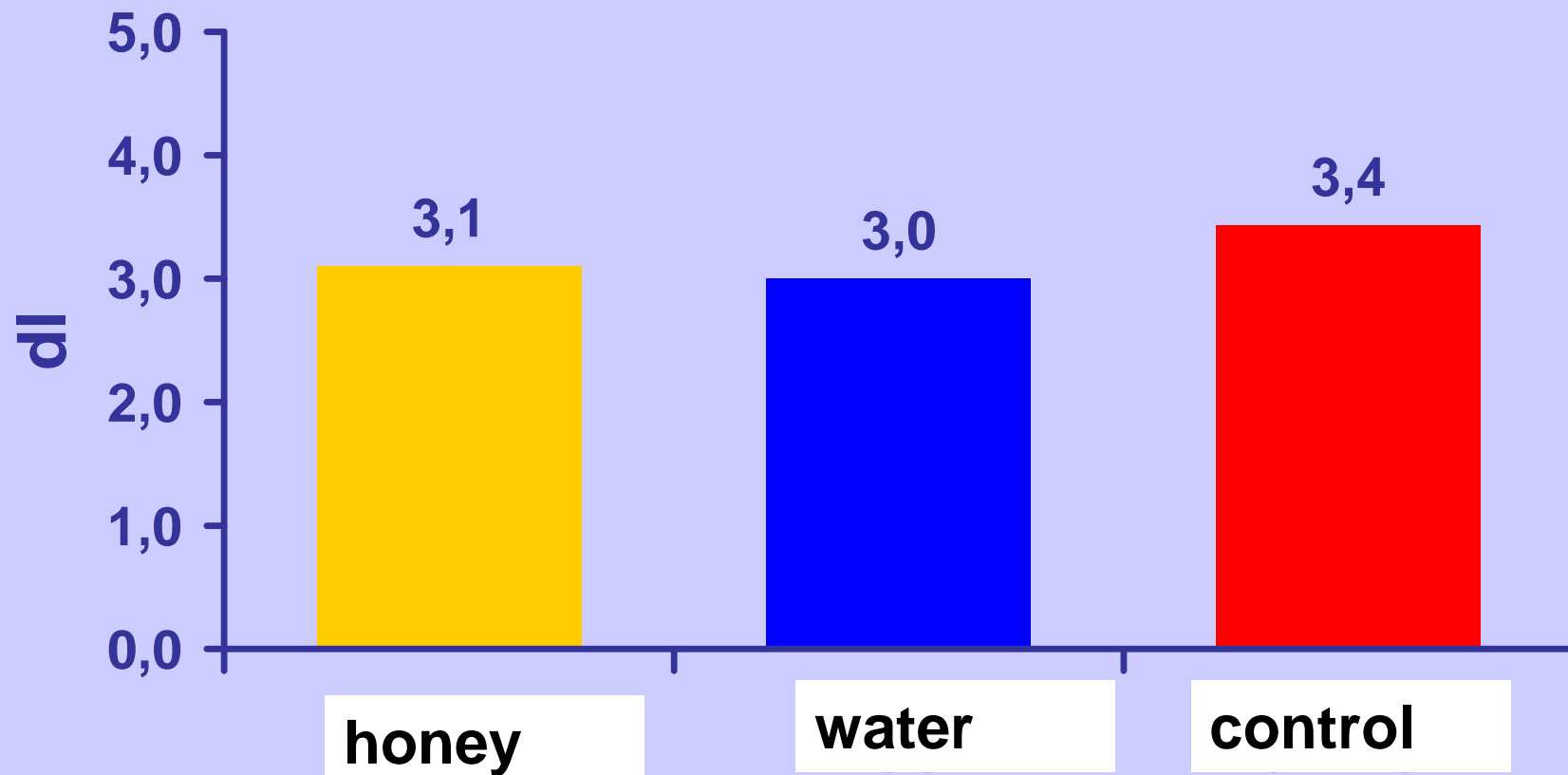
- Water best
- In physical feelings no difference
- In nausea/ stomach problems statistically different results between all drinks
- In cycling no differences !!



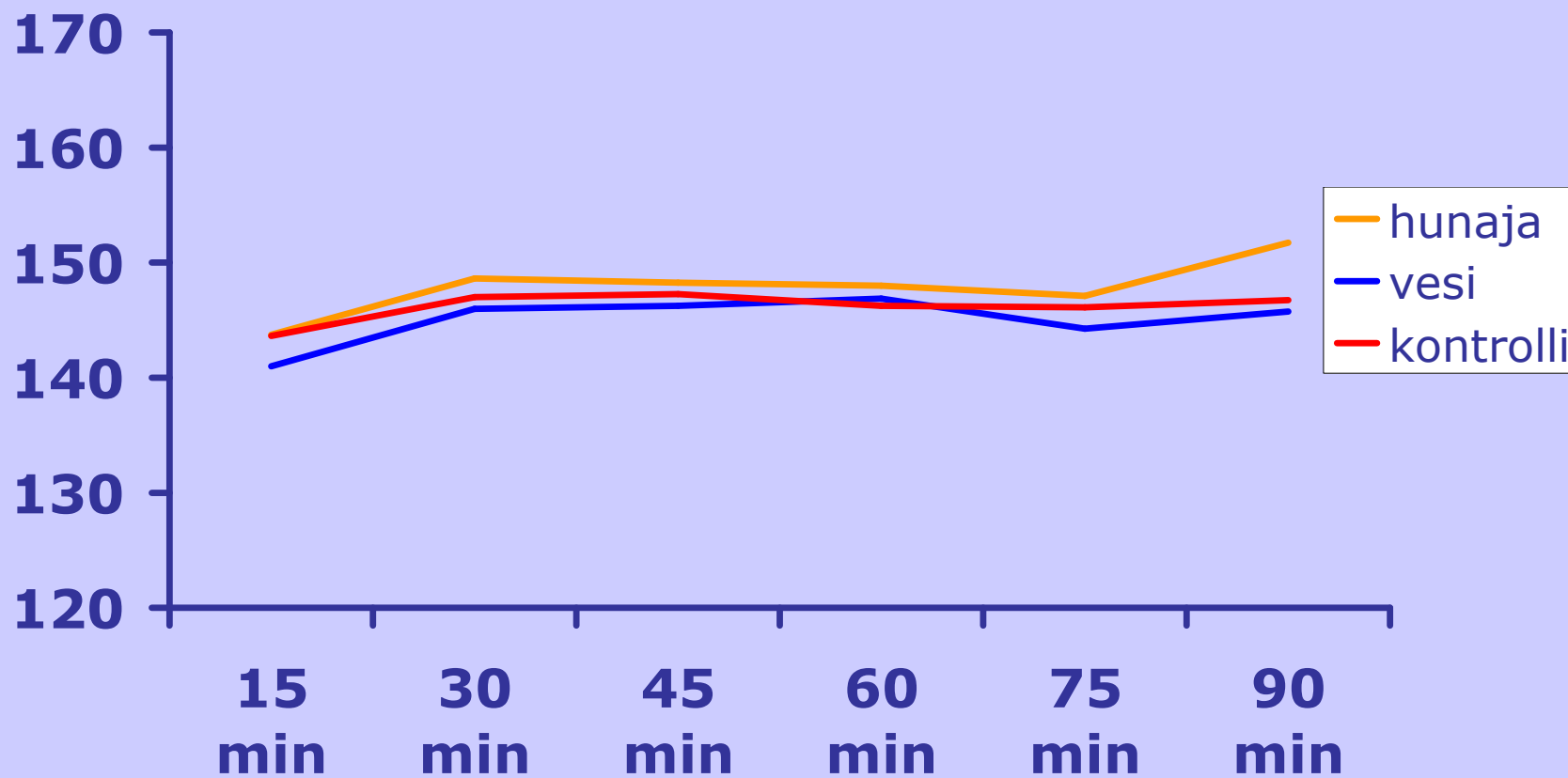
Weight change in running



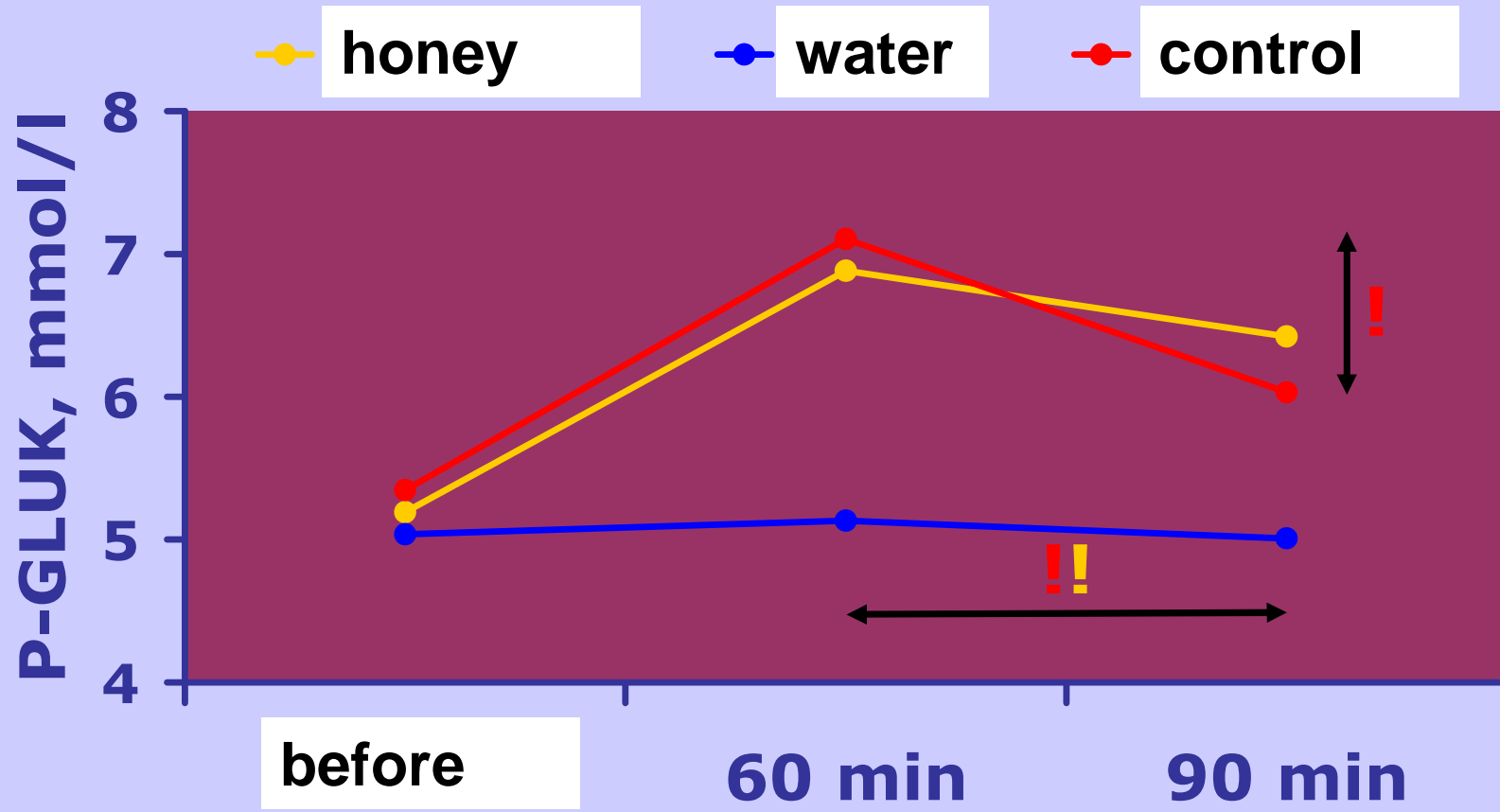
Urine production dl in cycling

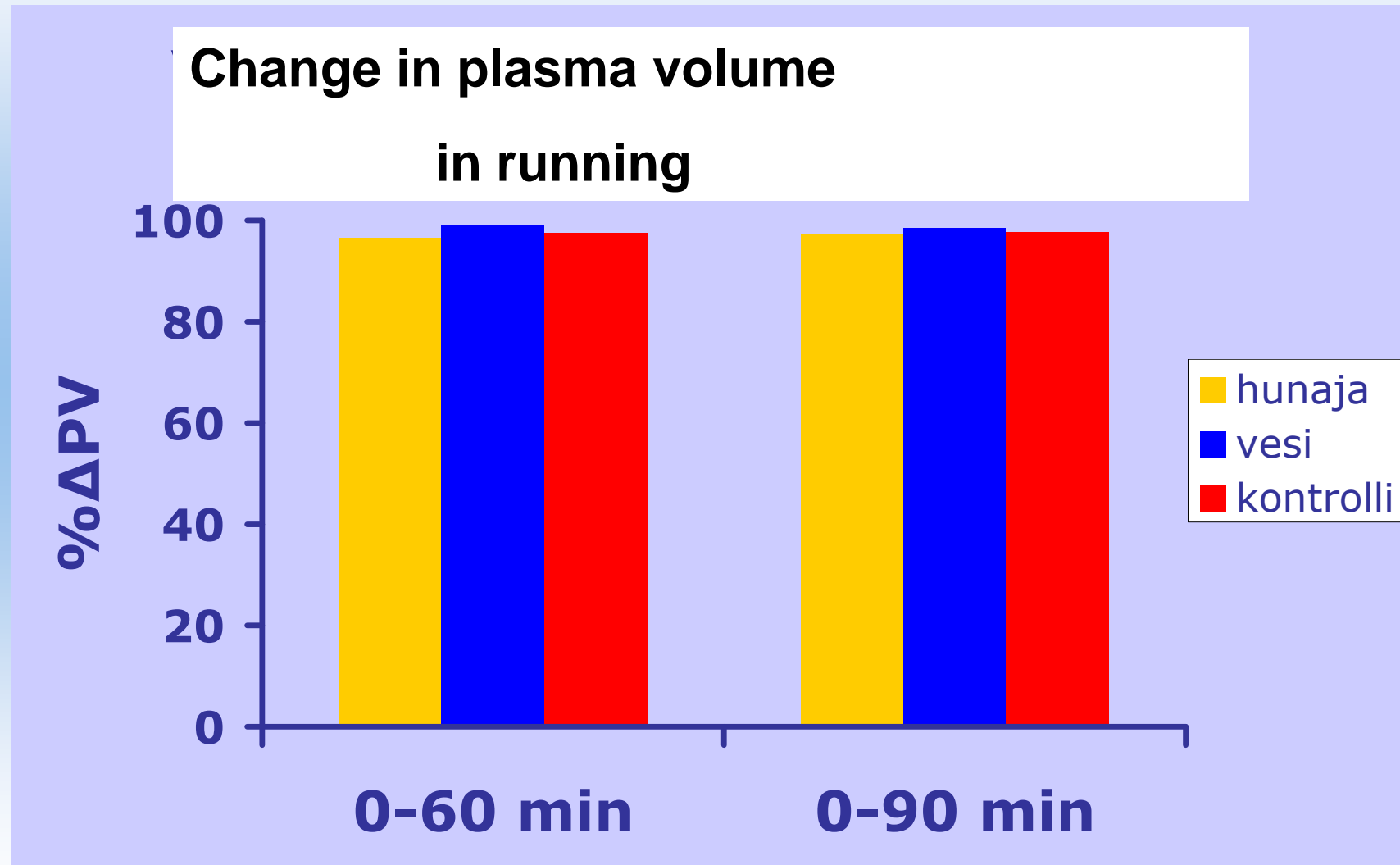


Heartbeat in running (beat / min)

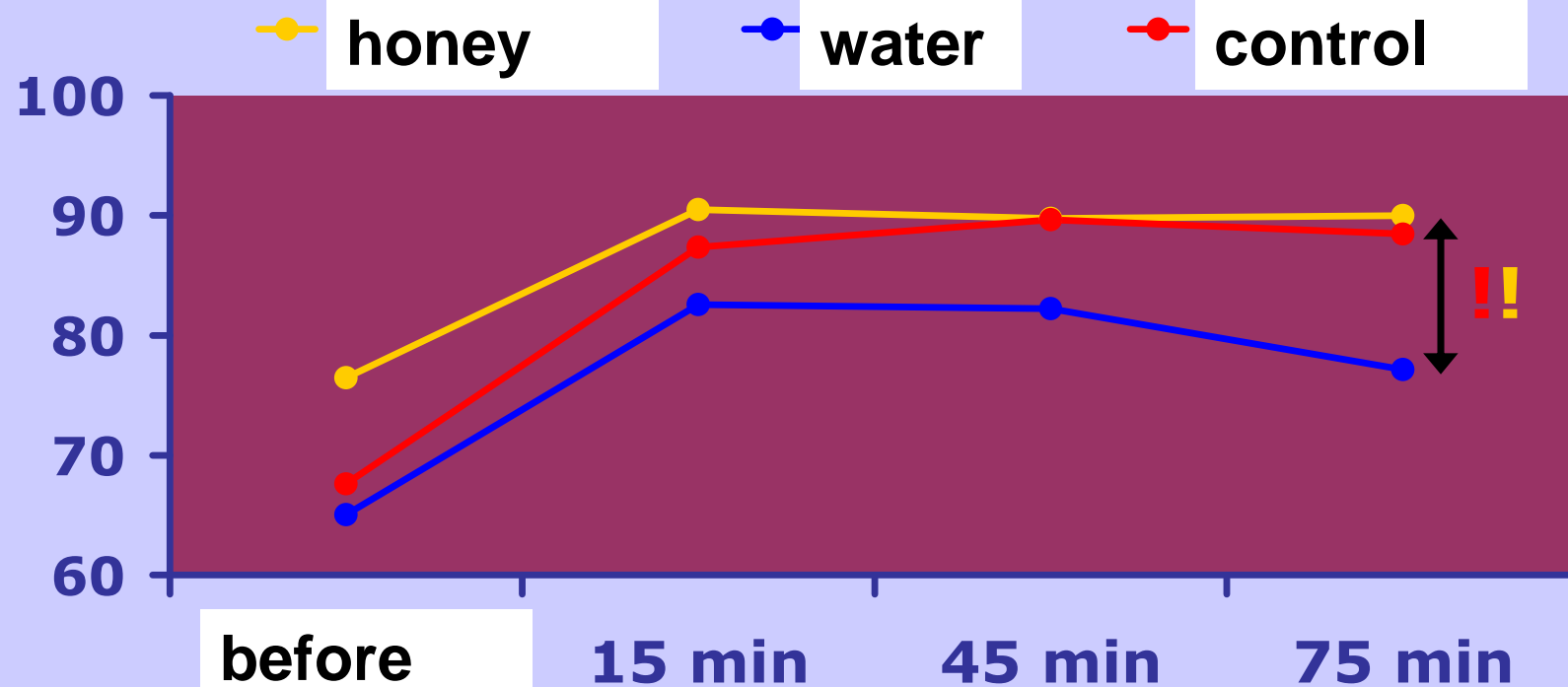


Blood sugar in running





Amount of aerobic energy production from carbohydrates (%) in cycling



Conclusions

- Honey sports drink is better tolerated by athletes than commercial sports drink
- Honey sports drink gives energy in endurance sports equally when compared to commercial sports drink.
- The responses in athletes insulin and blood glucose levels are similar in both sports drinks and they both differ from water

Conclusion honey sports drink vs. commercial sports drink - with which you ran further?

Looks like you can run equally far, but
with honey drink you seem to have
less toilet stops.

Beesting – honey sports drink for the whole team

- 450 g honey
- 1,8 dl lemon juice (fresh or concentrate)
- 1,5 tea spoon salt
- 5,5 l water

Mix honey and lemon juice, add water and salt.