Charles University
Faculty of Science

Study programme:

Biology

Branch of study:

Immunology

Bc. Anna Zelenska

Effect of low-carbohydrate diet on development of type 1 diabetes and immune parameters in NOD mice

Vliv nízkosacharidové diety na vývoj diabetu prvního typu (T1D) a imunitních parametrů na modelu NOD myši

Diploma thesis

Supervisor:

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2. Literature overview

2.5.1. Low-carbohydrate diet in T1D

P.19, line 5: "Thus, there is a need in larger, long-term ~~non-~~randomised controlled trials

-*long-term **randomised** controlled trials

2.7. Naive, effector and memory T cells in T1D

P.24, row 4: "observation that was made quite a long time ago is that islet-reactive ~~CD8+~~ and CD8+ T cells…" - *islet-reactive **CD4+** and CD8+ T cells

4. Materials and methods

P. 33, Fig.6; p. 34, Fig.7 **- *diabetes incidence was monitored from the age of 12 weeks**

4.2.4. Insulitis scoring, p. 36 - ***Figure 8** (an update):
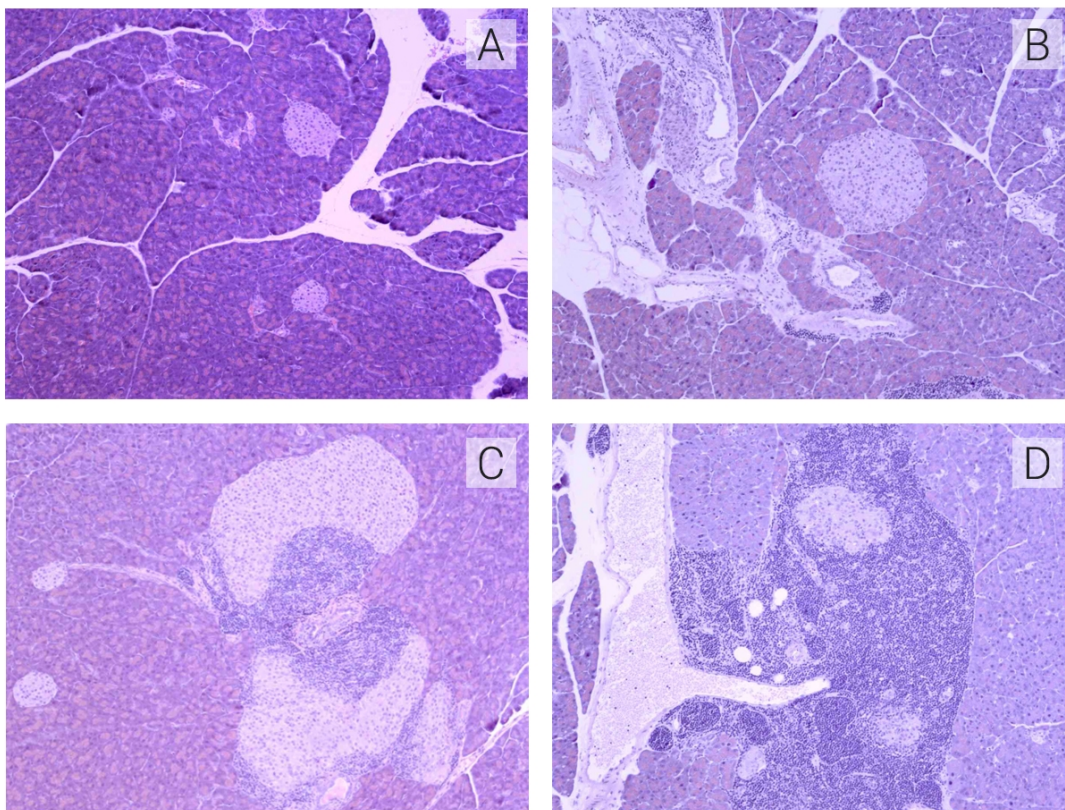
Fig. 8. Insulitis scoring. A) intact islet; B) periinsulitis; C) insulitis with < 50% of islet infiltration; D) insulitis with > 50% infiltration.

4.3. Statistical analysis

Missing sentence: ***The cumulative diabetes incidence was assessed using the Kaplan-Meier estimation, and statistical significance between groups was evaluated by the Log-rank test and Chi-squre test.**

5. Results

5.2.1. T1D incidence in NOD mice exposed to LC diet from *in utero*

*p. 49, an update - a third graph with T1D incidence:
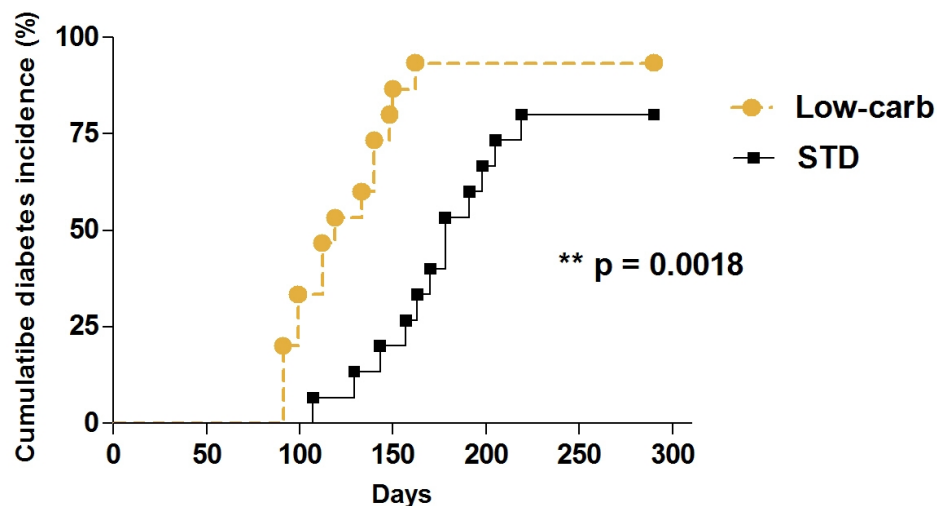
Fig. 23b. Effect of the low-carbohydrate diet introduced to pregnant females on diabetes incidence in F1 NOD female mice (up to the age of 290 days, n=15). Experiment 3 of 3.

6. Summary

(p. 65, paragraph 3, line 1):
"When investigating the effects of LC diet introduced to NOD females ~~since???~~ in utero…", - correct: ***from** in utero - should be consistent throughout all the text

paragraph 3, line 5: "with a statistically significantly decreased CD4+IL-10+ T cells ,

Foxp3+ Tregs , Tr1 cells" - *with a statistically significantly decreased **proportions of** CD4+IL-10+ T cells , Foxp3+ Tregs , Tr1 cells

7. References

*incorrect numeration from the reference 40, the whole corrected list is below.

* - reviews

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