

Table S1. General linear model (GLM) with a binomial distribution—effects of polymorphic variants of the *DIO1* gene, thyroid hormones, and their interaction on the reproductive traits in dairy cows.

Factor	<i>p</i> -values	
	The open days period	The first service conception rate
CG genotype	0.066	0.046
GG genotype	> 0.1	0.081
T4 (2 weeks PrP)	0.038	> 0.1
T3 (4 weeks PrP)	> 0.1	0.095
T3 (7 weeks PP)	0.035	> 0.1
T3 (13 weeks PP)	> 0.1	0.049
rT3 (2 weeks PrP)	0.080	0.096
rT3 (7 weeks PP)	0.095	> 0.1
T4/T3 (2 weeks PrP)	0.065	> 0.1
T4/T3 (13 weeks PP)	> 0.1	0.068
T3/rT3 (6 weeks PrP)	0.088	> 0.1
T3/rT3 (2 weeks PrP)	0.074	> 0.1
T3/rT3 (7 weeks PP)	0.051	> 0.1
rT3 (2 weeks PrP)xCG genotype	0.060	> 0.1

Abbreviations: prepartum (PrP), postpartum (PP).

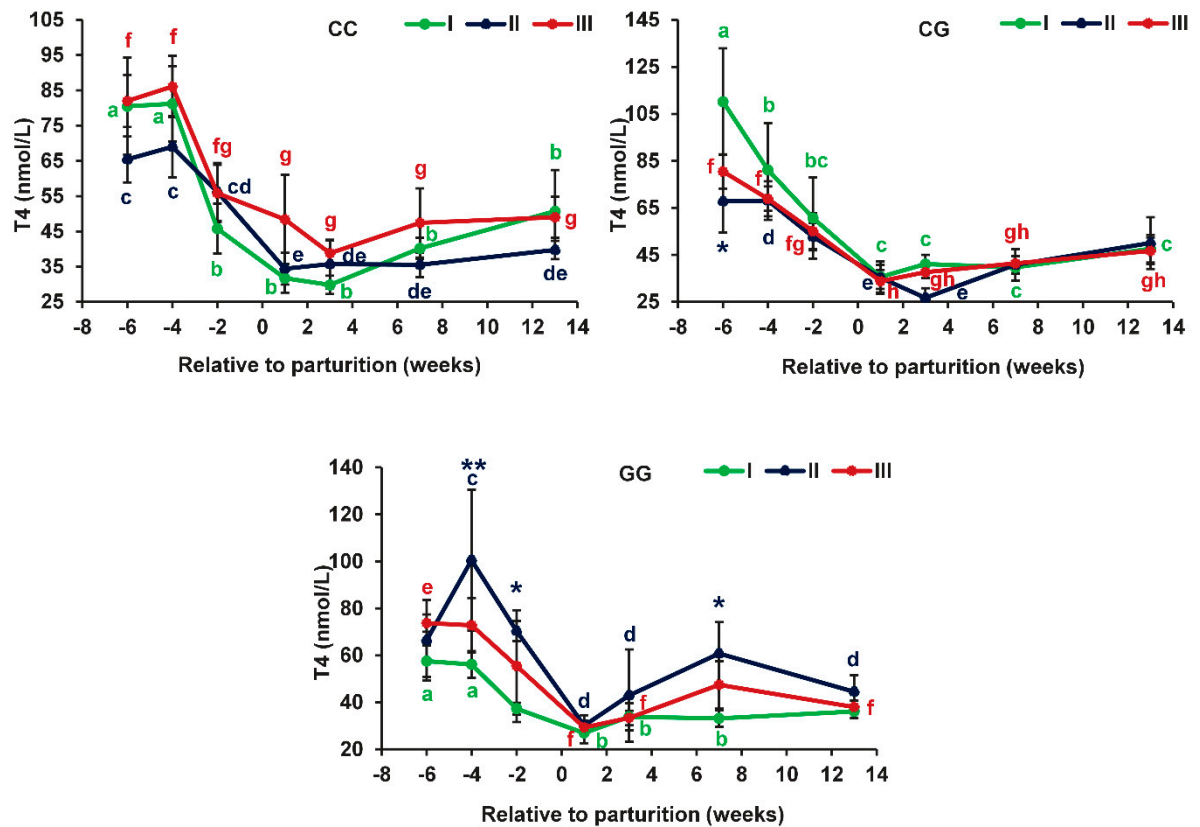


Figure S1. Serum total thyroxine (T4) concentrations during the prepartum and postpartum periods in dairy cows with different polymorphic variants of the *DIO1* gene in relation to the period of recovery of the ovarian luteal activity: < 7 weeks after calving (I); 7-13 weeks after calving (II); > 13 weeks after calving (III). Means with different letters differ significantly within each group (at least $p < 0.05$). * $p < 0.05$, ** $p < 0.01$ (compared to group I).

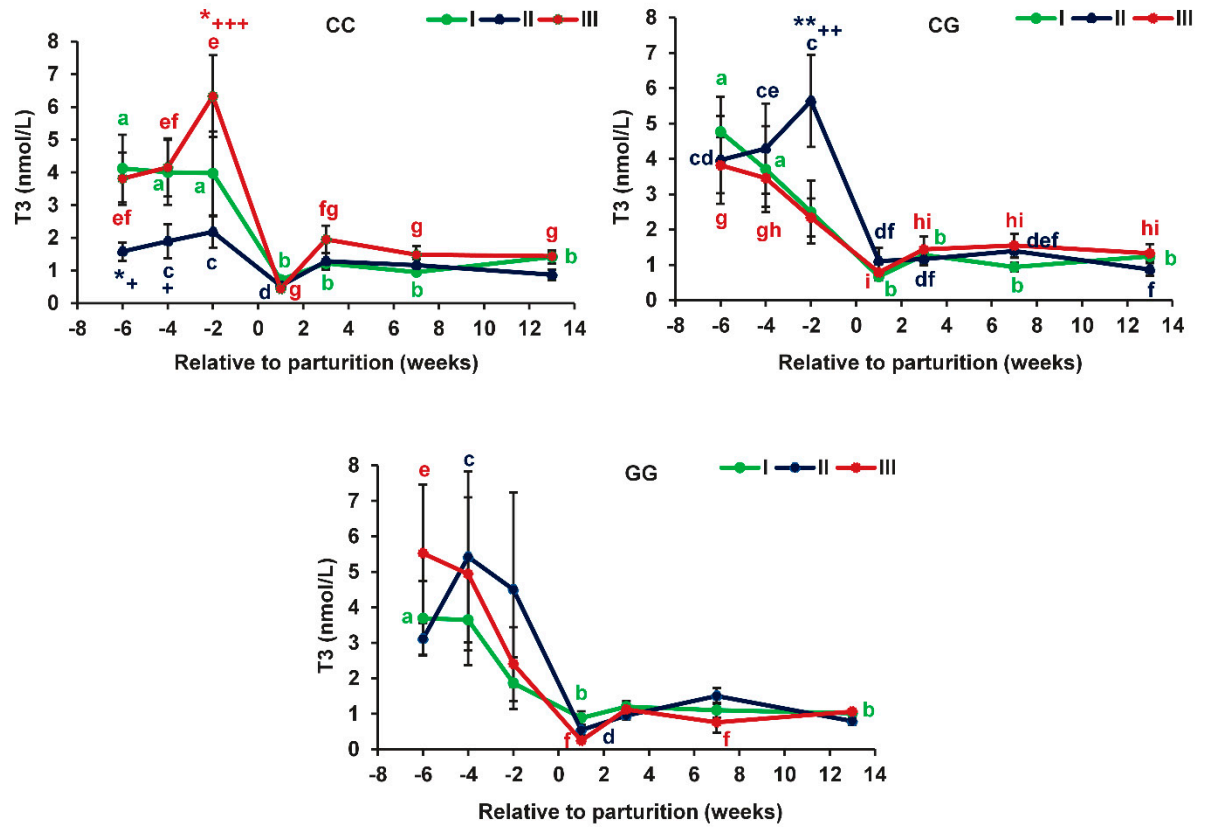


Figure S2. Serum total triiodothyronine (T3) concentrations during the prepartum and postpartum periods in dairy cows with different polymorphic variants of the *DIO1* gene in relation to the period of recovery of the ovarian luteal activity: < 7 weeks after calving (I); 7-13 weeks after calving (II); > 13 weeks after calving (III). Means with different letters differ significantly within each group (at least $p < 0.05$). * $p < 0.05$, ** $p < 0.01$ (compared to group I); + $p < 0.05$, ++ $p < 0.01$, +++ $p < 0.001$ (between groups II and III).

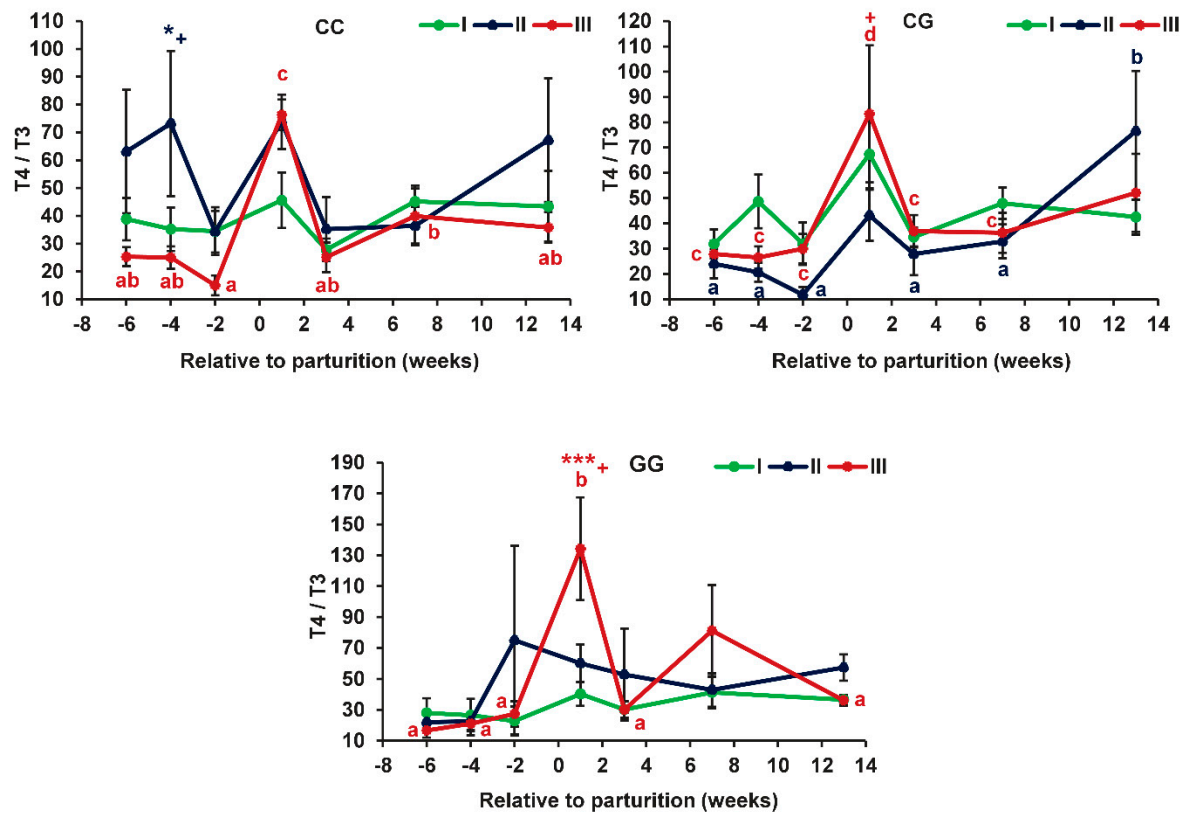


Figure S3. Total thyroxine to total triiodothyronine ratio (T4/T3) during the prepartum and postpartum periods in dairy cows with different polymorphic variants of the *DIO1* gene in relation to the period of recovery of the ovarian luteal activity: < 7 weeks after calving (I); 7-13 weeks after calving (II); > 13 weeks after calving (III). Means with different letters differ significantly within each group (at least $p < 0.05$). * $p < 0.05$, *** $p < 0.001$ (compared to group I); + $p < 0.05$ (between groups II and III).

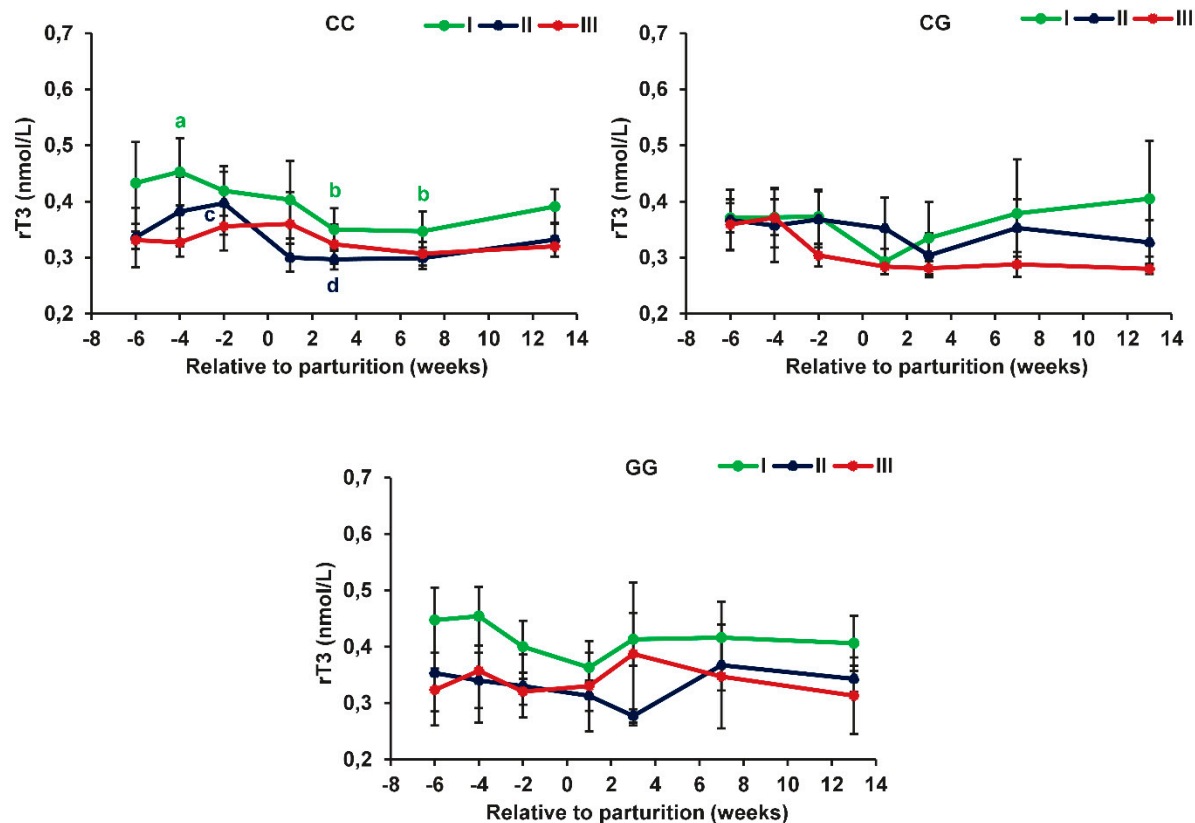


Figure S4. Serum reverse triiodothyronine (rT3) concentrations during the prepartum and postpartum periods in dairy cows with different polymorphic variants of the *DIO1* gene in relation to the period of recovery of the ovarian luteal activity: < 7 weeks after calving (I); 7-13 weeks after calving (II); > 13 weeks after calving (III). Means with different letters differ significantly within each group (at least $p < 0.05$).

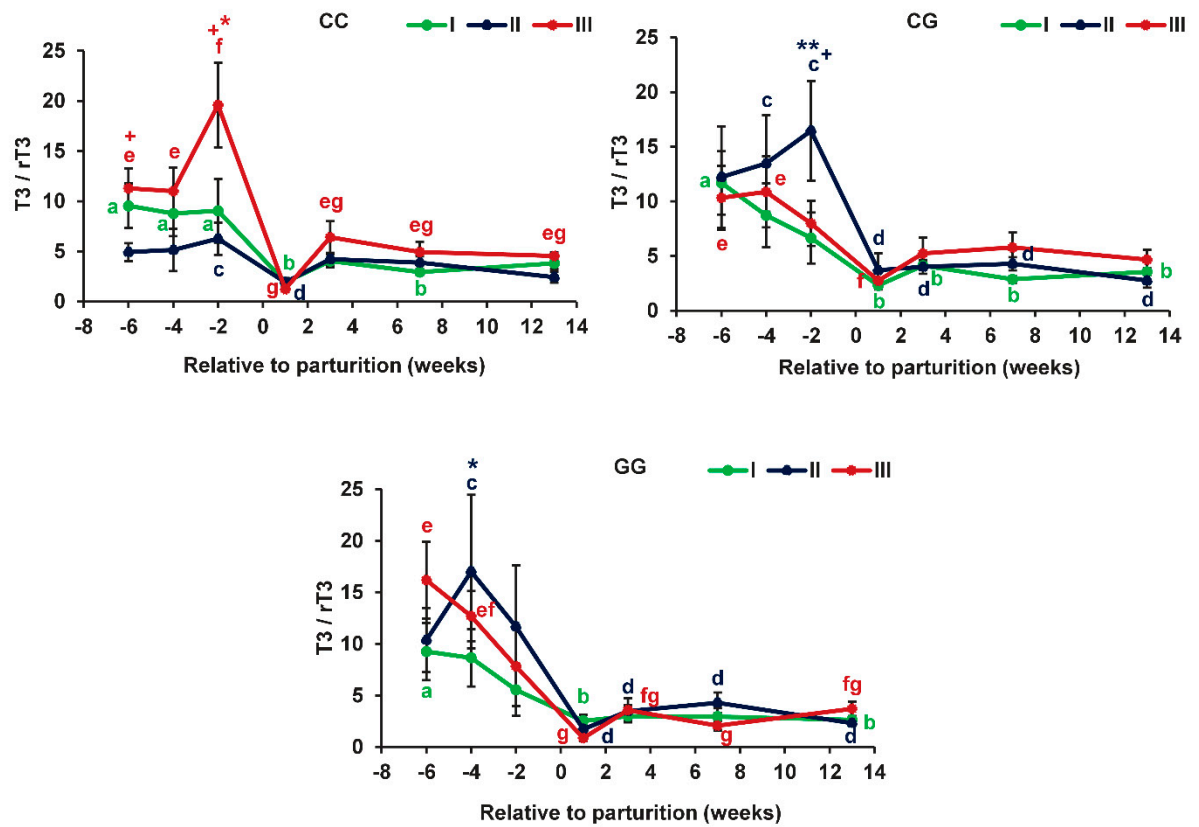


Figure S5. Total triiodothyronine to reverse triiodothyronine ratio (T3/rT3) during the prepartum and postpartum periods in dairy cows with different polymorphic variants of the *DIO1* gene in relation to the period of recovery of the ovarian luteal activity: < 7 weeks after calving (I); 7-13 weeks after calving (II); > 13 weeks after calving (III). Means with different letters differ significantly within each group (at least $p < 0.05$). * $p < 0.05$, ** $p < 0.01$ (compared to group I); ⁺ $p < 0.05$ (between groups II and III).

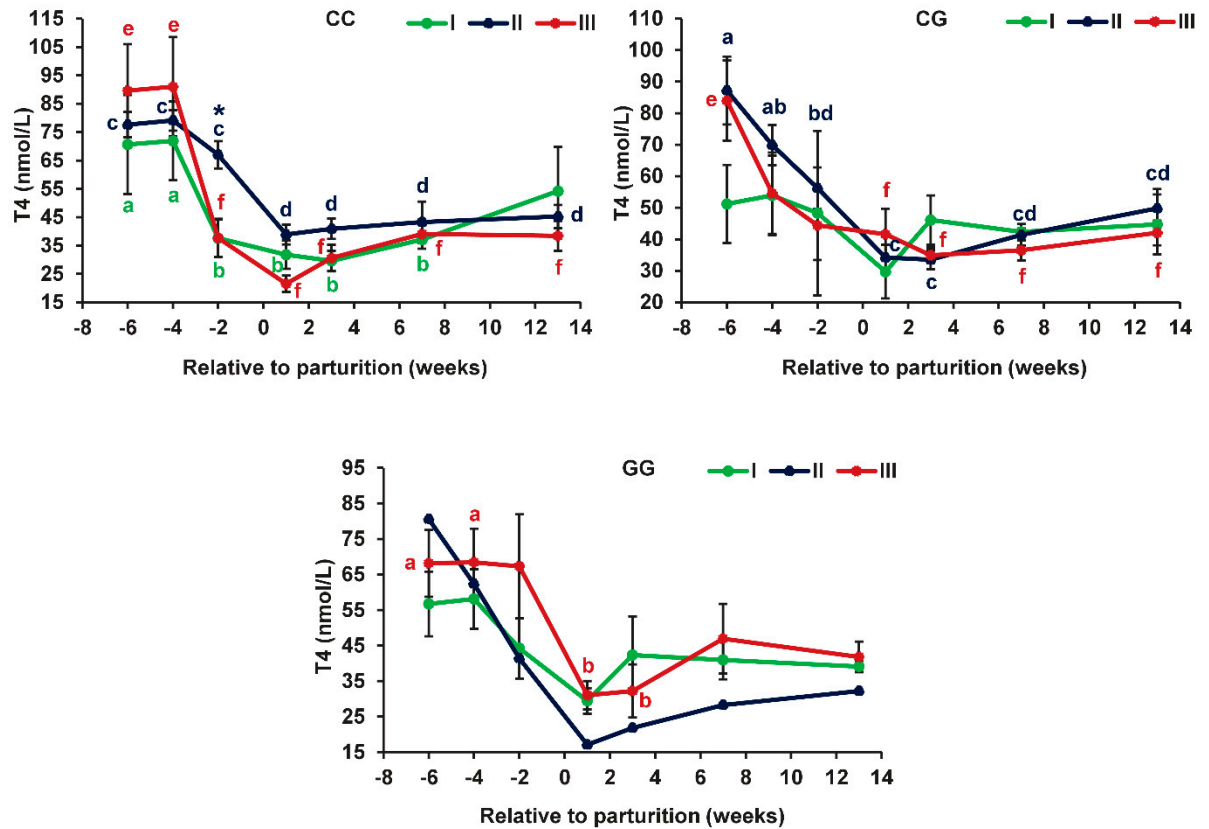


Figure S6. Serum total thyroxine (T4) concentrations during the prepartum and postpartum periods in dairy cows with different polymorphic variants of the *DIO1* gene in relation to the open days period: < 120 days (I); 120-240 days (II); 240-370 days (III). Means with different letters differ significantly within each group (at least $p < 0.05$). * $p < 0.05$ (compared to group I).

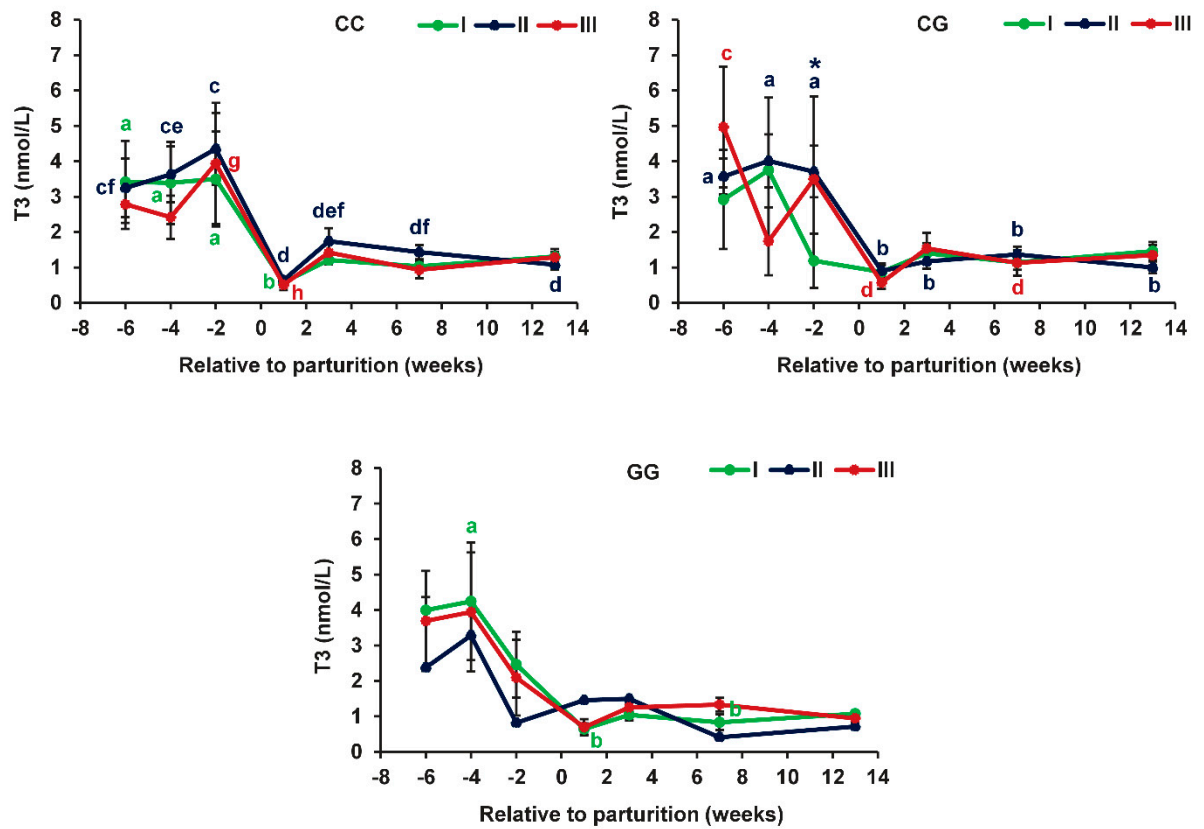


Figure S7. Serum total triiodothyronine (T3) concentrations during the prepartum and postpartum periods in dairy cows with different polymorphic variants of the *DIO1* gene in relation to the open days period: < 120 days (I); 120-240 days (II); 240-370 days (III). Means with different letters differ significantly within each group (at least $p < 0.05$). * $p < 0.05$ (compared to group I).

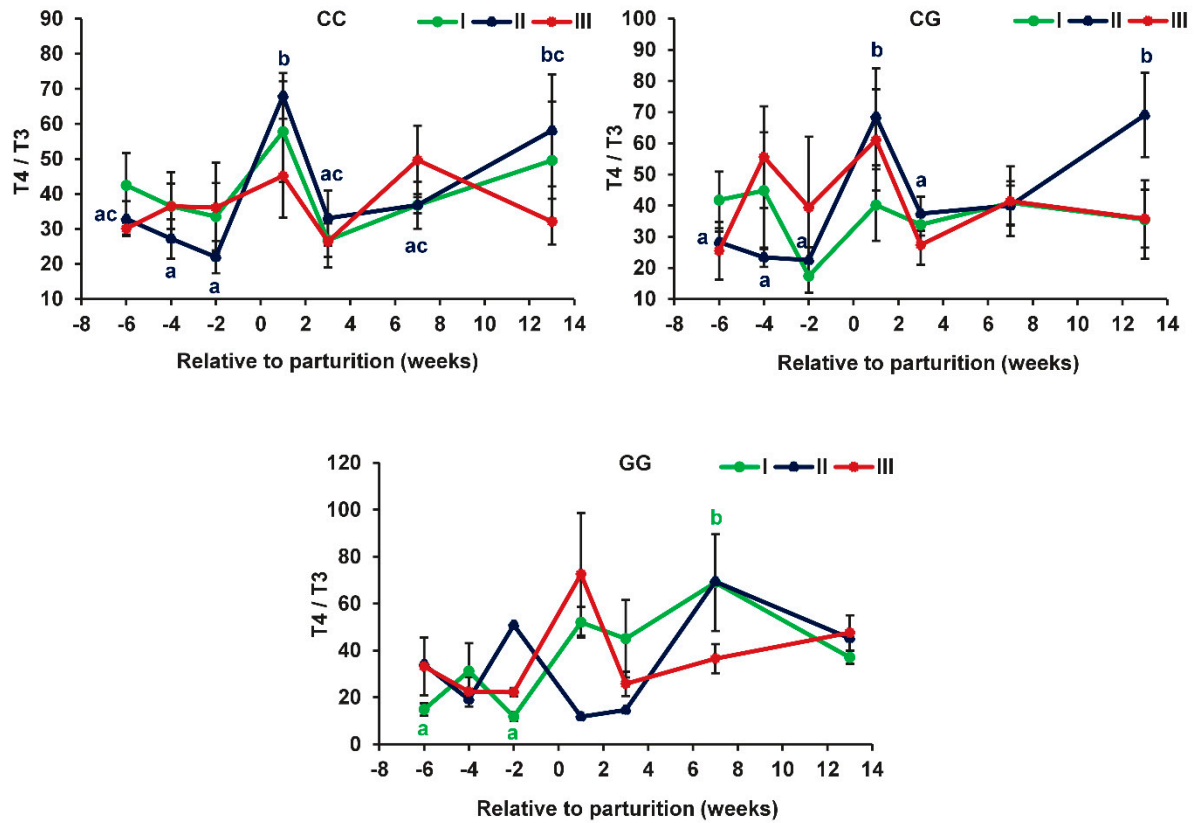


Figure S8. Total thyroxine to total triiodothyronine ratio (T4/T3) during the prepartum and postpartum periods in dairy cows with different polymorphic variants of the *DIO1* gene in relation to the open days period: < 120 days (I); 120-240 days (II); 240-370 days (III). Means with different letters differ significantly within each group (at least $p < 0.05$).

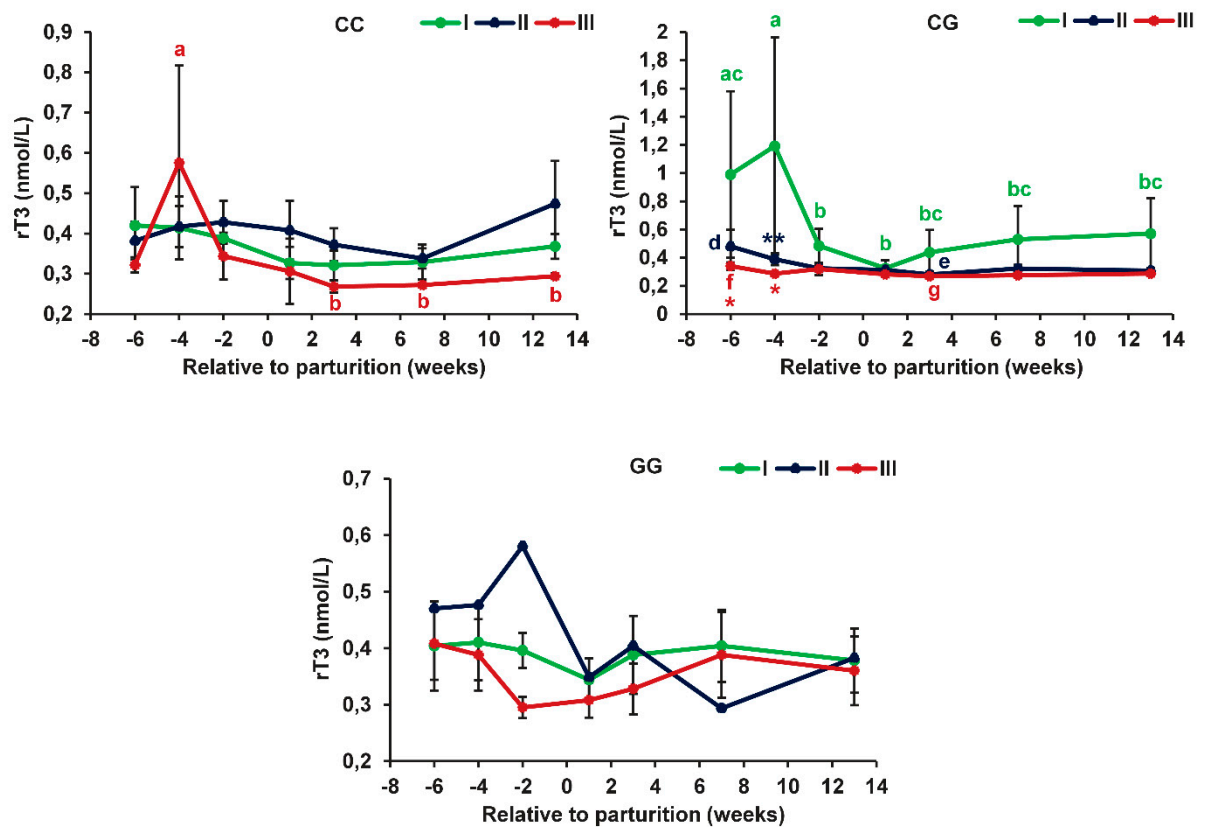


Figure S9. Serum reverse triiodothyronine (rT3) concentrations during the prepartum and postpartum periods in dairy cows with different polymorphic variants of the *DIO1* gene in relation to the open days period: < 120 days (I); 120-240 days (II); 240-370 days (III). Means with different letters differ significantly within each group (at least $p < 0.05$). * $p < 0.05$, ** $p < 0.01$ (compared to group I).

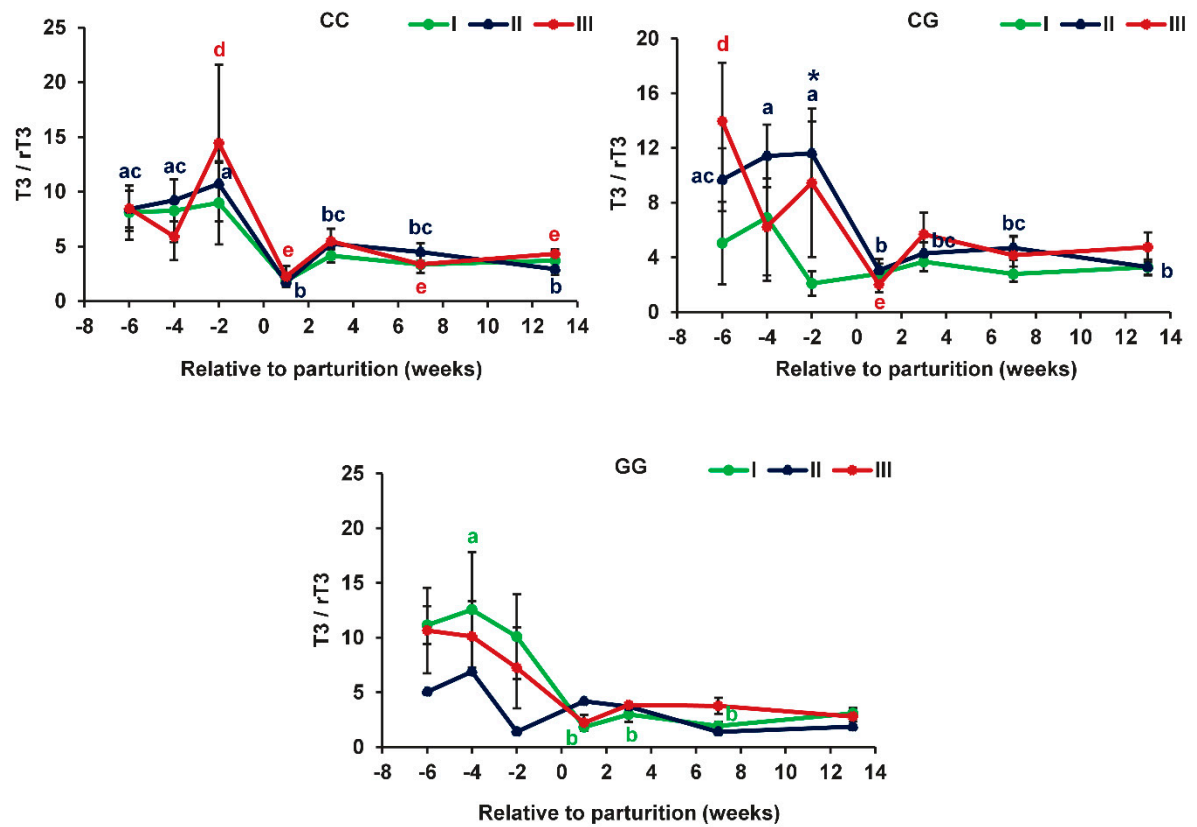


Figure S10. Total triiodothyronine to reverse triiodothyronine ratio (T3/rT3) during the prepartum and postpartum periods in dairy cows with different polymorphic variants of the *DIO1* gene in relation to the open days period: < 120 days (I); 120-240 days (II); 240-370 days (III). Means with different letters differ significantly within each group (at least $p < 0.05$). * $p < 0.05$ (compared to group I).