Variability of glycemic and insulin response to a standard meal, within and between healthy subjects Variabilidad de las respuestas glucémica y de insulina, intra e intersujeto, a una comida estándar en individuos sanos

Hirsch, Sandra

Barrera, Gladys

Leiva, Laura

de la Maza, María Pía

Bunout, Daniel

Aim: To test the variability within and between subject of glycemic response test following the ingestion of a standard food. Material and methods: Glucose and insulin response of a standard meal (white bread) was performed in ten healthy volunteers and repeated under identical conditions for 6 times. Blood glucose and insulin levels were measured in the fasted state and over the 180 min following commencement of consumption of the foods The Area Under the Curve (AUC) for glucose and insulin was calculated for the values above baseline for the 3-hour period following the standard meal. Within and between coefficient of variation was calculated. Results: The total intra-individual variation of the gAUC was 51.8% range 24.9 to 91.4%. The inter-individual variation of the gAUC in the complete study was 75.2%. The total intra-individual variation of the iAUC was 51.9%. ranged: 7.7 to 103%. The inter-individual variation in the complete study was 86%.

Conclusion: Glucose and insulin respons