

CGA/19/10 - Metformin-associated B12 deficiency and cognitive function in Type 2 Diabetes

Metformin is the first line treatment for type 2 diabetes (T2D). T2D patients have lower vitamin B12 levels in their blood after taking metformin. It is not clear whether this decrease in vitamin B12 causes any harm. Vitamin B12 is essential to normal energy production in all cells of the body and especially cells in the brain. Our preliminary data suggest that patients who are on metformin and a B12 supplement have better cognitive function, a term referring to things like memory, the ability to learn etc., when compared to patients on metformin alone. In the current project, we plan to study whether metformin-caused B12 decline compromises cognitive function in Scottish T2D patients.