

Patient:

Date:

Tuesday 2<sup>nd</sup> July 2019

## Comments:

- You have wished to book an appointment with me in order to obtain my 'Functional Medicine advice' regarding your metabolic markers, i.e. total cholesterol and uric acid, showing too high. You also say that you "*feel different since reaching 50*", feeling a bit down sometimes and more easily stressed. You complain about "*a little bit of constipation*" and recently gaining 4 kilos of weight "*around the middle*".
- Indeed, high cholesterol, weight gain, and constipation trend could come from a somewhat low thyroid function and you did pinpoint TSH level of 2.86 mU/L when we met (keeping in mind grey zone starting above 2.50). The slightly borderline value of TSH is confirmed with 2.66; we besides note low urinary active thyroid hormones T3 and, more interestingly, mild *autoimmune thyroiditis* expressed by elevated anti-thyroperoxidase (TPO) autoantibodies. It would be useful to further document your thyroid status with a **thyroid US scan**. We spot numerous surrogate markers for low T3; that includes high cholesterol.
- We have no indication for a proper prescriptive thyroid hormonal treatment, but we can launch a short trial with T3 support from a gentle and non-prescriptive glandular (GTA, twice a day given short T3 life) together with optimizing conversion cofactors selenium (SEOSJ) and zinc (ZNIPY). These aim at better converting thyroid prohormones T4 in active hormones T3, especially as the DIO2 converting gene is OK.
- Thyroid and adrenal glands work in close synergy and you should benefit from taking pregnenolone. It is seen as a food supplement the US, but we need a prescription for compound capsules in Europe. This natural adrenal prohormone represents the direct precursor to progesterone, which I like to call serenity hormone for its relaxing and anti-inflammatory properties, plus it helps fighting intestinal permeability.
- Indeed, elevated endotoxins (lipopolysaccharides/LPS) and high zonulin uncover a '*leaky gut*' that you would expect to find among autoimmune patients. I systematically ask them to move into strict **gluten-free** diet because **gluten** contains **gliadin** that always increases gut porosity (no need for gliadin allergy, which you don't show). Given the modest level of antithyroid autoantibodies, we can hope that reliably excluding **gluten grains** for a while would clear the autoimmune attack on your thyroid: worth trying it!
- Removing **bread**s would certainly contribute to losing abdominal fat, anyhow, but you will have to make sure you do not rely on heavily processed and sugar-loaded '**gluten-free foods**', always very unhealthy. Regarding cholesterol, I share another crucial finding to help further: your apoE genotype harbours one 'E4' allele that will always make you overreact to cholesterol-rich foods such as **dairy products** and **red meat**. Your 'E3/E4' apoE genotype indicates a balanced diet for three macronutrients (carbs, fats, and proteins); it besides encourages a preference towards **plant**-based diets rather than **animal**-based diets.
- We now can help you counteract the increased risk for developing *Alzheimer's disease* attached to the E4 allele through dietary interventions, food supplements, and lifestyle modifications that all appear on your genomic results. I am making sure your program includes all of that and I stress the need to reduce **alcohol** intake; no **beer** due its high **barley (gluten)** and **hops (oestrogenic)** content. Anyhow, **alcohol** and **spicy foods** must be strongly reduced in your case, because they increase intestinal permeability. To help you manage such changes, I suggest you see my nutritionist who will provide a nice **eating-plan**.

Georges MOUTON MD