ASSOCIATIONS BETWEEN ALTERED MICROBIOME AND SYSTEMIC SCLEROSIS: IMPACT OF DENIPLANT NUTRACEUTICALS

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Systemic sclerosis is a progressive autoimmune disease that results in inflammation, fibrosis, and dysfunction of multiple organ systems including the skin, lungs, gastrointestinal tract, and blood vessels.

Systemic sclerosis is about 4 times more common among women than men. It is most common among people aged 20 to 50 and is rare in children.

Aetiology and pathogenesis are unknown.

Emerging reports have identified unique microbial taxa alterations in the gastrointestinal microbiome of patients with systemic sclerosis as compared to healthy controls.

Nutraceuticals refer to compounds or materials that can function as nutrition and exert a potential therapeutic effect.

Interventional studies aimed at addressing/correcting these perturbations, either through dietary modification, pro/pre-biotic supplementation, or fecal transplantation, may lead to improved outcomes for patients with systemic sclerosis.

Treatments help with symptoms and may modify the disease outcome, especially early in the disease course.

They focus on suppressing inflammation and dilating abnormal/constricted blood vessels. Some newer treatments target specific immunological pathways and signalling molecules.

Specific treatment is difficult, and emphasis is often on treatment of complications.

Treatment depends on the symptoms that are present and the organs that are affected in the disease, and may include immunosupressive therapy.

This comunication reviews current knowledge relating to Deniplant nutriceuticals and its management in systemic sclerosis.

The purpose of this presentation is to summarize recent studies reporting gastrointestinal microbiota aberrations associated with the systemic sclerosis disease state, and disease manifestations in therapeutic interventions with Deniplant Nutraceuticals that target the gastrointestinal microbiome.

Objectives: To evaluate changes in microbial composition and the evolution of gastrointestinal tract symptoms in systemic sclerosis after Deniplant Nutraceuticals.

About 30% of patients with systemic sclerosis are at risk of malnutrition.

In 5-10%, gastrointestinal disorders are the leading cause of death. Up to 18% of patients with systemic sclerosis are reported to be at high risk of malnutrition with risk increasing with disease severity.

Little is known about this decline, its rate of progression and how it affects the individual.

The multidisciplinary management of these patients, including nutritional intervention, helps improve gastrointestinal symptoms, and avoid malnutrition, morbidity and improve quality of life.

Malnutrition in systemic sclerosis is frequently under-estimated when assessing patients and this may lead to an impaired estimation of prognosis.

The presence of malnutrition is indicated by anthropometric and biohumoral changes reflecting protein stores (low serum prealbumin) and influenced by organ involvement in systemic sclerosis (skin and the gastrointestinal tract).

Current treatments of systemic sclerosis are based on controlling inflammation.

Our experiments found that oral consumption of Deniplant nutraceuticals improves the clinical symptoms in patients with systemic sclerosis.

Patients at high risk of malnutrition or with low prealbumin levels have shown increased mortality risk and, therefore, a nutritional assessment is mandatory in every systemic sclerosis patient.

This screening is especially important as malnutrition represents a potentially modifiable risk factor with nutritional interventions.

More research is needed to further characterize the gastrointestinal microbiota in systemic sclerosis and understand how microbiota perturbations can affect inflammation, fibrosis, and clinical outcomes.

Natural products can modulate the inflammatory and/or oxidative mediators, regulate the production or function of the immune cells, thereby attenuating the experimental and clinical manifestation of the disease

Conclusion

We suggest a potential link between the gut microbiome and immune activation. Whether the gut microbiota aberration is a result of systemic sclerosis or a cause remains unclear.

We show a reproducible shift in microbiome composition with Deniplant nutraceuticals.

Nutraceuticals can be considered an adjunct treatment for systemic sclerosis to improve the quality of life of patients suffering from this disease.

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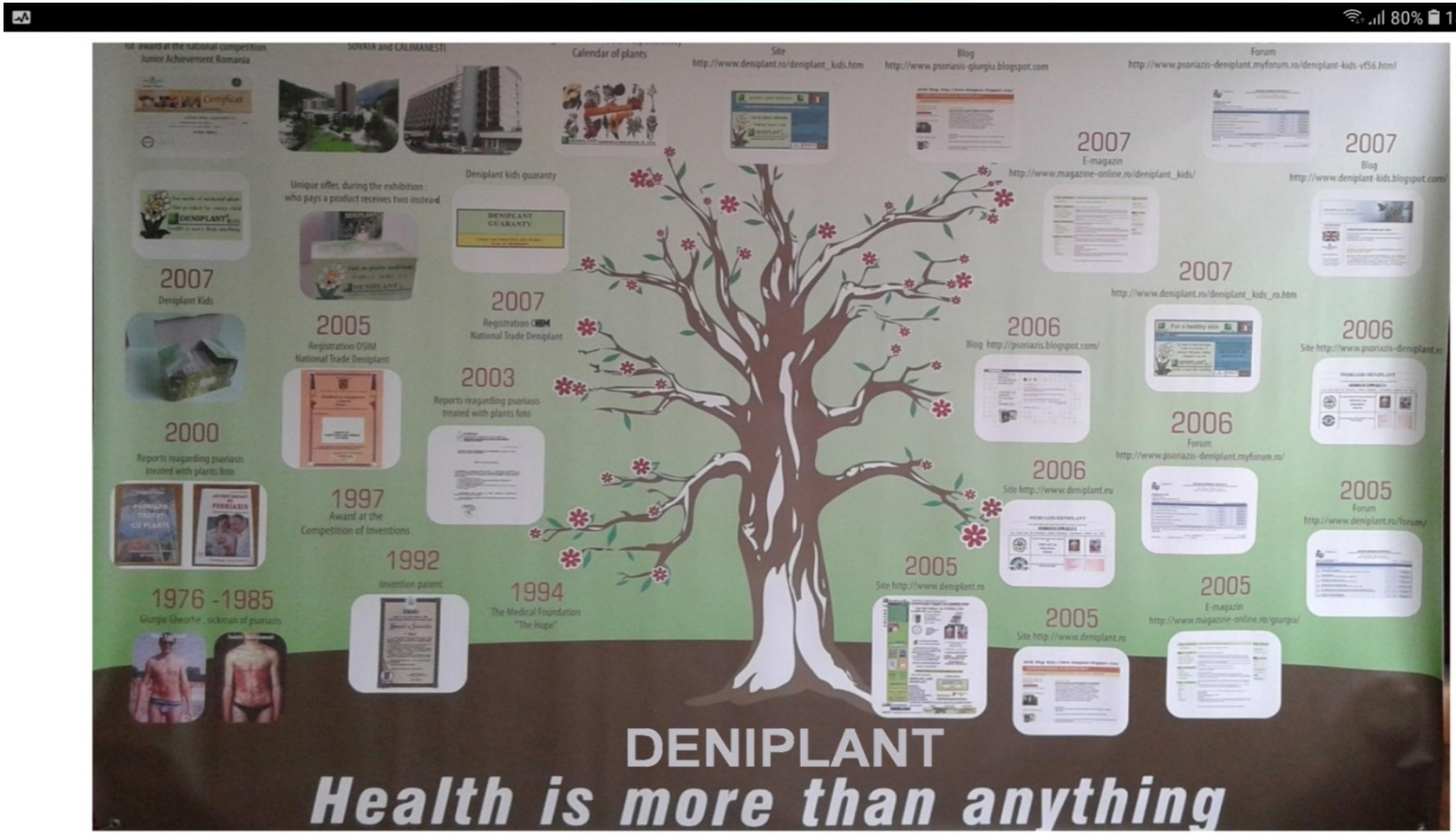

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