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ORIGINAL PAPERS

Natural Modulation of Intestinal and Cutanate Microbiome in Patients with Psoriasis

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Abstract

Through the modulatory effect on the body's immune system, the intestinal and cutaneous microbiome exert influences on the skin homeostasis. The microbiome exhibits beneficial actions in the body under conditions of eubiosis, however, when dysbiosis occurs, the microbiome can trigger various autoimmune, metabolic, neurological conditions (eg allergies, eczema, asthma, psoriasis, diabetes, central nervous disorders). This can happen when fragments of microbial DNA cross the intestinal barrier and reach the bloodstream and even into the nervous system. Although modern medicine is trying to modulate the microbiome, to use it for the treatment of certain conditions, this has not been achieved so far. By using antibiotics and other medicines, the microbiome can be severely affected by affecting the health of the body. In the last five years, discoveries in the field of genetics and immunology have allowed the initiation of new studies on the role of the intestinal and skin microbiome in patients with psoriasis. Using natural herbal remedies and fruit tree buds, we developed a natural modulator of the intestinal and cutaneous microbiome with which it was able to slow down and even stop the evolution of psoriasis, without ointments or other drugs and without food restrictions. Thus, the path has been opened to the realization of functional foods (nutraceuticals) with dual role: nutrition and health, which can naturally modulate the activity of the human microbiome, restore the eubiosis, the processes of cell restoration and healing of the organism.

Key words*:* microbiome, psoriasis, autoimmune diseases, natural remedies, functional foods (nutraceuticals).

Introduction

(1) The paper presents new ways of preventing and treating psoriasis disease through the natural modulation of the intestinal and skin microbiome.

(2) Although psoriasis is a disease that has been present for hundreds of years, dermatology treats it as a strict skin condition and for this reason the treatments are generally aimed at healing the surface skin. For this reason the

cure of the disease is only partial, with multiple relapses and extensions. Although we are trying to find an effective treatment of internal causes, so far this has not been achieved and for this reason the psoriasis disease is classified as incurable.

(3) With the help of phytotherapy and gemotherapy, respectively with medicinal plants and fruit buds, acting on the dysbiosis of the intestinal and skin microbiome, it can intervene on the immune system and the process of apoptosis of the epithelial cells and by triggering self-healing reactions in the body, psoriatic lesions disappear by themselves.

(4) During the last five years the discoveries in the genetic and immunological field, have allowed the initiation of new studies regarding the role played by the skin and intestinal microbiome in the patients with psoriasis. Thus, Golden Staphylococcus or Pyogenes Streptococcus may induce maintenance or exacerbation of psoriasis lesions. An important role in the occurrence and maintenance of psoriasis lesions is also the microbial flora of the intestine, through the systemic effects exerted by it. Studies have shown increased bacterial diversity in patients with psoriasis compared to healthy subjects, with reduced Actinobacter colonization and predominant cutaneous Firmicutes, which may characterize a phenotype specific to chronic inflammation found in psoriasis. When dysbiosis of the gut microbiome occurs, microbes and metabolites in the gut induce regulatory T cell and lymphocyte reactions, which facilitate an anti-inflammatory response. Studies have also been performed on translocation of some fragments of transgenic DNA into blood samples in patients with psoriasis. This suggests that new outbreaks of psoriasis may be related to the presence of bacterial DNA circulating in the blood, originating from the intestinal lumen. Healthy intestinal bacterial composition may reduce intestinal permeability and the risk of bacterial DNA translocation.

Literature review on the topics covered

In the history of mankind, often after a great discovery, it took many years for decision makers in that field to accept and promote the value of discovery. This is what happened with the discovery of the microbiome with which we are contemporaries. In 1958 the biologist Joshua Lederber defined the term "microbiome", for which, at the age of 33, he received the Nobel Prize. Why, for 50 years, the medical world has not given importance to this discovery, and it was not until 2008 that the European project entitled MetaHIT was launched, which led to the discovery that people also differ by the bacteria that live through them, not just by blood type elements.

Dusko Ehrlich, (1) project coordinator at MetaHIT, explains why the microbiome will play an important role in personalized medicine: "by analyzing

the genes of the organisms that live in us, physicians can identify unique aspects of each patient, which will allow conception of personalized treatments".

Another microbiologist, Julian Davies, (2) from the University of British Columbia, states that: "the effort for a better understanding of the microbiome is the most important scientific project of all time".

In 2018 researchers from three countries, Belgium, Holland and Malta wrote a well-documented psoriasis and microbiota: "Psoriasis and Microbiota: A Systematic Review" (3). The purpose of the paper was that, through a thorough review of the literature, to discuss the skin and intestinal microbiota and to redefine their role in the pathogenesis of psoriasis.

1. Following the research, it was concluded that in addition to improving the course of psoriasis, selective modulation of the microbiota can increase the effectiveness of medical treatments, as well as mitigate their side effects. However, no natural modulation of the microbiome was found.

2. In the paper it is said that in the 1980s, suspensions of the Malassezia ovalis mushroom fragments applied to the unaffected skin of patients suffering from psoriasis induced the formation of psoriatic plaques in all 10 subjects tested (4).

In the same year 1980, being hospitalized with psoriasis in the Military Hospital, I detached psoriasis shells from my head and body and placed them under adhesive tape on healthy skin to see what was happening. Well those placards that looked alive did nothing but simply dried. Maybe I didn't select those mushrooms mentioned above.

3. The paper also presents a recent study by Darlenski et al. (5) that provides information on how to improve psoriatic plaques, after treatment with narrowband ultraviolet radiation (NB-UVB), a conventional systemic therapy for the treatment of psoriasis. Treatment with NB-UVB has already been shown to cause significant changes in the skin microbiota. I also started treatment with ultraviolet rays. After treatment the skin healed relatively quickly. But when psoriasis came up again, UV therapy did not work anymore and then it was used for PUVA rays with the ingestion of Psoralen and Meladiline pills (photosensitizers). After several sessions for 45 days, the lesions disappeared, but not from the whole body, but only where there were large surfaces. I agree that after such treatments with UV or PUVA when the skin is healed and the skin microbiome returns to normal. But you see, once there are some injuries on the body, it means that the skin's microbiome is not uniform and in some places it remains damaged. I personally believe that until the dysbiosis in the intestinal microbiome is resolved, even if the skin level is resolved, psoriasis is not cured. It's just that surface resolution.

4. Regarding the interaction of the microbiotherapy with the allopathic treatment, it is stated that: "The skin microbiota also interacts locally with local treatment in psoriasis". During the treatment with Deniplant tea if patients used in combination with cortisone ointments, at first there was a heal of lesion healing,

but after a short period the lesions returned to the initial stage. In addition at one point the body seemed to no longer react well to Deniplant tea because of the cortisone.

My conclusion was that I do not go in parallel. As with treatments with monoclonal antibodies.

5. In the context of psoriasis, the role of diet (often associated with exercise) has often been promoted by virtue of its ability to modulate and improve patients' psoriatic plaques and treatment effectiveness (6,7).

I also observed in patients who used Deniplant tea and who had fasting, either at Easter or at Christmas fasting, a faster improvement of psoriatic lesions, but at the end of the regimen, the lesions appeared again. If patients permanently change their way of life (food) is good, because those relapses no longer occur.

If during the treatment with Deniplant tea the patients had other medical problems and used antibiotics or other drugs, negative changes were also seen in psoriatic lesions. Any disturbance of the gut microbiome and the immune system has repercussions on psoriasis lesions as well.

Theoretical foundation

Recent studies (2015-2016) of Japanese specialists confirm the importance of the gut microbiome on antitumor immunotherapy and emphasize the importance of eubiosis (8.9).

The skin microbiome influences the functions of T cells in the skin by producing IL-2 but also IL-17 (10) and modulates memory T cells (11).

Dysbiosis of the skin microbiome can be caused by changes in the skin microbiome, alteration of the skin barrier and immune functions, but also dysbiosis of the intestinal mycobiome.

Since 2010 researchers have been seeking to find oral prebiotics and probiotics with which to influence the axis of the intestine-nervous system-skin (12).

Content of the article

As a result of my own experience, during which for 7 years I was ill with psoriasis, I learned how traumatic this disease can be and what psycho-emotional implications it can have.

Although we did repeated treatments in the Central Military Hospital, at first all the lesions disappeared, but as the disease was chronic and the lesions were on larger areas on the body, even after long-term treatments, the injuries did not disappear completely.

The fact that the doctors told me that this disease is incurable, made me look for solutions in herbal medicine and gemotherapy.

After two and a half years of searching and testing on the body, the medicinal plants and buds of the fruit trees have proved to be the only effective remedy in my case against the internal causes that trigger and sustain this disease.

After obtaining a patent for a process for obtaining a herbal extract for the treatment of psoriasis, we founded the Speranța Medical Foundation with the aim of supporting the activities of those who know the mysteries of nature in the field of medicine and their application for human benefit.

Thus, with the help of scientifically used medicinal plants, the foundation has shown that certain so-called incurable diseases (for allopathic medicine) can be ameliorated or even cured. The cases of cases solved in Romania, and dozens of cases abroad, as well as obtaining the gold medal at the '97 technical news salon, have proved this.

In 2005 the natural remedies discovered by me receive a name: Deniplant - Deniplant brand with the slogan "Health above all" is registered at OSIM-Romania. Four years later the Deniplant trademark becomes a Community trademark and the current EUIPO (Office of the European Union for Intellectual Property) is registered at OHIM.

The use of the natural remedies Deniplant by the patients attending recovery sessions based on the treatment from Sovata, emphasized that by intervening on the skin with water and mud from Lake Ursu, the cure of the disease was much faster.

Seeing these results, we began the study to find an explanation of the phenomena that occur within the body and which lead to the healing of these conditions.

Following for one year the courses organized by Prof. Dr. Manole Cojocaru (13) in which the human microbiome was presented, I came to the conclusion that these natural remedies discovered by me act on the human microbiota that influence autoimmune, metabolic and neurological disorders.

The use of water and sludge from Sovata, salt water from Călimănești-Căciulata or mud from Techirghiol, allowed the modulation of the skin microbiome to trigger the reactions needed to heal the skin.

However, following the patients who used Deniplant tea in parallel with the aforementioned procedures, we concluded that only modulation of the skin microbiome cannot definitively solve the problem of psoriasis, if it does not intervene on the gut microbiome.

The intestinal microbiome triggers the modulation of the skin microbiome and if it is influenced from the outside, the results can be amplified (14).

This is also deduced from the fact that in psoriasis when intervening with ointments or other medicines for external use, the skin microbiome is affected, but in the long term the changes at that level can negatively affect the intestinal

microbiome and hence those reactions of rebaund and generalization of the disease.

That is why I think we are facing a new discovery, namely a natural modulator of the human microbiome.

This year, in collaboration with the Aide-Sante Clinic, we set up a Biomedicine Center where we are trying to highlight with medical analysis and evidence this possibility of natural modulation of the human microbiome with the help of food.

Conclusions

(1) Psoriasis being a common inflammatory skin condition, affecting about 3% of the world population, must be treated multidisciplinary and personalized, the microbiome of each patient being a unique entity that responds in particular to the allopathic and naturalistic treatment.

(2) The realization of functional foods (nutraceuticals) with a dual role of nutrition and health, is a desire of both food producers and those who care about human health, because they can naturally modulate the activity of the human microbiome, restore eubiosis, the processes of cellular recovery and healing of the body.

Although it is known how and where prebiotics and probiotics work, it is necessary to find ways to personalize them according to the medical condition we want to solve, not being recommended in general.

(3) Future research will focus on the relationship between the human microbiome and cellular apoptosis in other diseases as well as the modulation of the intestinal microbiome with the help of dietary restrictions.

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