

New discoveries in protein metabolism

Use of MAP in Health Care

In May 1999, the doctors that are members of the Association for Organic Nutrition (S.E.N.B.) dedicated their European convention to a revolutionary discovery in protein metabolism – MAP (Master Amino Acid Pattern), essential amino acids extracted from plants. To date, no fewer than 26 scientific medical articles on the use of MAP have been published. In order to bring this topic closer to the readers, we have decided to present some highlights from those articles on the use of MAP in the treatment of various diseases.

The contents of this article are purely informative. For all readers and their doctors interested in more detailed medical information we have attached a list of references. As an introduction, let us summarize some basic information on MAP, as published in Aura issue 147.

On the discovery of MAP™

Proteins are vital for our bodies as they are the building blocks of each and every cell. All enzymes, hormones, haemoglobin and immunoglobulins are proteins. Yet few foods are as hard to digest as protein, which put a strain on the organism in two basic ways:

a) Strain on the digestive system

In the digestive system protein is broken down into its constituent amino acids. Usually it takes 3-5 hours, sometimes even longer, to digest protein, and this says everything about how demanding this digestive process is.

b) Strain on the secretory system

Even when being digested all the protein is not used, and even more waste is produced during metabolism of amino acids in the cells. Dr M. Luca-Moretti discovered the procedure of how to calculate the percentage of amino acids that our body can use. The most problematic is the utilization of essential amino acids, the ones that our body cannot synthesise and which therefore must be obtained from food. They have to be in a certain ratio to enable the body to build up human protein. That is not the case with foodstuffs, which is why the utilization is quite low. Dietary protein gives a NNU (Net Nitrogen Utilization) value of 49% for mother's milk, 48% for hen egg, 30–38 % for meat, 17% for soya and 16% for milk and dairy products. Plant food in particular has low protein nutrition value, with its NNU at a maximum of 18%.

Those amino acids that the body does not use to build up cells via the anabolic pathway are broken down in the catabolic pathway into toxic waste that places a great strain on the secretory system, especially the liver and kidneys. Protein metabolism is no problem for a healthy and strong body, as it is able to effectively digest protein and to dispose of protein catabolites in due time. On the other hand, this can be critical for the ill and the weak.

Nutritional science and medicine could not overcome this problem until Dr Luca-Moretti and his colleagues at the International Nutrition Research Center (INRC) discovered the solution. After finding out the ideal composition of essential amino acids he practically compiled all 8 amino acids into the ideal ratio in MAP™ and patented it. The result was a product with an NNU of no less than 99%. In this way both of the basic problems of protein metabolism were solved: the food does not put any strain on the digestive organs, and it is absorbed through the small intestine in 23 minutes. Furthermore, it releases only 1% of nitrogen catabolites on the cellular level. Since MAP puts so little strain on secretory organs (and the digestive system), the body builds up new cells, enzymes and hormones much quicker and easier. All this promotes more effective treatment.

To whom doctors recommend MAP

The INRC in Florida, led by Dr Luca-Moretti, has the longest experience with MAP. It was first sold in pharmacies in Italy in 1993 where – according to data from Dr Luca-Moretti – more than 7,000 doctors are currently recorded as recommending MAP. This food supplement is also absolutely safe when taken in large dosages. According to reports by Dr G. F. Hermann and Dr M. Luca-Moretti, no cases of food sensitivity for MAP has been found up to now, nor any other negative side effects [3, 4]. Among healthy groups, doctors recommend it to *pregnant women, children, the elderly, vegetarians, athletes and people losing weight* [3]. In this text, however, we will limit ourselves to the medical experiences of treating diseases. Let us take a look at some of them:

a) *Impaired renal and hepatic functions*

When surplus protein is broken down, ammonia is formed that the liver processes into urea, which is then secreted by the kidney. If we substitute protein in one meal daily with MAP, the level of ammonia and urea in the bloodstream goes down by 35% to 55%. This is very beneficial for patients with renal and hepatic failures [1, 3, 5].

In an experiment led by Dr N. Tamburlin, 12 CRF (Chronic Renal Failure) patients had their dietary protein substituted with MAP for 30 days. The main blood indicators were significantly improved in all of the patients (less nitrogen, creatinine and phosphorus in the blood), the haemoglobin level increased and the level of potassium did not show any observable change. All the patients felt better at the end of the experiment, with an improved quality of life (less fatigue, reintegration into the work process), and their skin had a healthier colour and more tone. [6]

b) *Gastrointestinal disorders*

MAP does not require digestion, and does not produce faecal residue, so it is a very convenient food for patients with gastrointestinal disorders (even after gastrectomy).

Dr Del Prete reports the successful use of MAP in treatment of 10 patients with inflammatory bowel disease (ulcerative colitis and Crohn's disease) [7]. Dr B. Fidone successfully used MAP in a case of ulcerative rectocolitis where results could be noticed already in two weeks [8].

c) *Diabetes*

When amino acids are broken down, a lot of glucose is produced. Up to now, doctors have neglected this because they maintained that the body can effectively use almost all the assimilated amino acids. Therefore they only advised patients not to take carbohydrates. Supplementing one protein meal with MAP lowers the glucose level by 24%, which is why its consumption is recommended also for diabetic patients [3].

Dr N. Tamburlin found that in all the diabetic patients for whom she substituted dietary protein completely by MAP, the levels of blood sugar lowered substantially. [6]

d) *Food sensitivities, allergies and asthma*

Since MAP is a completely safe food supplement, even for patients with allergies, asthma [9] and food sensitivities, it is beneficial for these groups of patients.

Dr N. Tamburlin conducted an experiment on 208 patients with dietary sensitivity to various foods. One group was treated using only dietary measures, by excluding the foods to which the body was intolerant. The other group was treated with a diet in which MAP was used to replace protein in one meal. In the group treated only by dietary measures, the improvement after a month was 58.9%, after two months 82.3% and after three months 99.3%. In the group that was also taking MAP the improvement was 83.9% already after one month, and 100% after two months. To sum up: after two months all the patients taking MAP were cured whereas the group treated with purely dietary measures still had some patients that were not cured [10].

e) *Treatment of iron deficiency anaemia*

Anaemia is not only caused by iron deficiency but also by protein deficiency, because haemoglobin that transports iron is a protein. Studies show that this kind of anaemia is cured more quickly with MAP than with conventional therapy.

In Spain Dr Montilla conducted an experiment on 12 anaemic patients that were found to have blood iron deficiency. The group that was treated conventionally (by adding iron, vitamins and minerals to the diet) perceived a 46% cure, while in the group of patients that had 10g of MAP added to the conventional therapy, everybody was cured. In patients of this group, a substantial increase in haemoglobin and haematocrit was found [11].

f) Pains due to obesity

Dr G. Muratori published the results of an experimental 30-patient 10-day weight-losing program using MAP. The doctor was primarily interested in the influence on the limb pains that are a common side effect of obesity. The expected average weight loss was 3.5 kilos. What is important, however, is that limb pains in particular were reduced. The patients experienced other pains less during the day as well as at night. Morning stiffness also decreased significantly [12].

g) Cardiac insufficiency

Dr B. Fidone described a three-month test on the use of MAP in 12 patients with cardiac insufficiency between 69 and 90 years of age. The patients were treated conventionally, as well as taking 10 tablets of MAP daily and a vitamin-mineral supplement. There were less heart arrhythmias, less toxic substances in the blood and less water retention. Gradually the dosages of diuretics were reduced (even to zero). The dosages of other drugs could be reduced as well [13].

h) Respiratory problems

Dr G.P. Ivaldi tested the effect of taking MAP in patients with aggravation of chronic breathing problems. A group of 8 patients, aged 56 to 83, had their conventional therapy (and diet) supplemented with 10 MAP tablets daily and vitamin-mineral supplement (VIT Formula and ENER Formula). All the patients had been hospitalised due to an aggravation of the disease (two of them had to be resuscitated). All of them experienced a greater improvement in their condition than with the usual therapy and were discharged from hospital. Seven of them normalized their body weight (overweight decreased, underweight increased) [14].

i) Multiple sclerosis

Dr L. Bufalini studied long-term effects of MAP and vitamin-mineral supplemented diet in 9 patients with multiple sclerosis. Basically they took 16 tablets of MAP per day, and in the first three days of the acute condition even more (25). The condition of all of them improved after the first month of such enriched diet. As a result, they could work satisfactorily and live a normal family and social life [15].

j) Recovery after fractures, injuries and surgical procedures

Doctors recommend the use of MAP especially during pre- and post- surgery periods and after various kinds of injuries, because the body recovers faster and better with MAP than with common protein food [3].

The author of this article experienced beneficial effects of MAP after a surgery on his hand fractured in an accident (September 2004). The fractured bone was fixed with a plate and 5 screws. He has been taking MAP for 3 years, and after the operation he increased the dosage to 15 tablets daily. A month after the surgery the bone was healed to such an extent that the fracture could not be perceived in the X-ray picture. The physiotherapist said that the wound was healing in an exemplary fashion, that the muscle mass had been preserved exceptionally well and that she had never seen any patient with such fast recovery. A month and a half after the surgery, the flexibility of the wrist was close to normal.

Other diseases and medical conditions where doctors recommend MAP are:

k) alcoholism [3],

l) anorexia [16],

m) constant vomiting [1],

- n) bulimia [17],
- o) chemotherapy [3],
- p) diarrhoea [1],
- q) fatigue of patients with cancer, AIDS etc. [1],
- r) lack of appetite [3],
- s) increased catabolism [1].

Dr Luca-Moretti mentioned at his conferences that MAP has also been used in the treatment of other diseases (e.g. osteoporosis, muscle dystrophy, immune deficiency), but no scientific articles have been published about them as yet.

Dosages

Usually 0.4 g of MAP or 1g of highly nutritional dietary protein is needed per kilogram of ideal body weight [5].

The quantity of MAP is not dependent on other medications. In such cases – as with all food supplements – the doctor must carefully monitor the dosage, because faster recovery might necessitate the reduction of the dosages of some medications.

MAP can be taken any time, possibly with meals. It can be combined with all foods (some time ago it was mistakenly believed that it should not be used with other protein).

When purchasing MAP it is important to obtain the original product because some imitations have appeared on the market. The biggest European MAP suppliers are the Italian GUNA (supplying pharmacies) and the Swedish company GOH. The MAP products sold by both companies are equivalent – the author of this article has personally tested both of them in practice.

References

The Italian articles given below can be found at www.guna.it/articoli, and the English materials at www.goh.biz.

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