

Preface

Throughout the ages and until the present day one of the most prevalent observed disorders of the organism is fatigue condition (also known as fatigue syndrome, asthenia, weakness etc.); however, the essence and methods of effective prophylaxis and treatment of this suffering has not been resolved.

In this work, I have tried to present this problem from a new point of view. During my over twenty years as chief of the clinic, I and my coworkers in the Ukrainian Research Center of Gastroenterology and in a research project "Adaptive peptides," including gastroenterologists, pharmacologists, veterinarians, and biochemists, had studied the role of gastroduodenal hormones in pathogenesis and treatment of digestive diseases. As a result of many years of research conducted on farm and laboratory animals and patients in the clinic, it was possible to bring to light the real mechanism of a **close connection between digestion and fatigue**, which has been observed for centuries.

It is well known that many people suffer from the fatigue syndrome after food intake. Yet in the nineteenth century, this syndrome was called by different names: "dyspepsia asthenic", "digestive fiber", "neural dyspepsia", and "stomach neurasthenia". This syndrome is observed very clearly after stomach resection, and is known by the name of "dumping syndrome." Specifically, in those patients with reduced gastroduodenal hormones, I, for the first time, have discovered that introduction of secretin (a natural extract of the duodenum) prevented patients from suffering from this pathological post-nutrition syndrome and was accompanied by evident and remarkably rapid healing effect.

Keeping in mind that secretin, which we used, was not a pure preparation, it is natural to presume that it could contain some other substance. The observed protective effect can be due to some hitherto unknown property of secretin or

even due to some yet unknown substance (hormone), which could be identified in the future.

Thus, we have determined the previously unknown fact that the digestive system produces a hormonal factor protecting the organism from fatigue connected with digestion.

In my paper presented in 1975, I called this disorder "syndrome of dishormonal digestive asthenia." In the following years, our studies broadened our understanding of the antifatigue function of the duodenum and its role in the pathogenesis and treatment of this syndrome. One thing is certain - that we are dealing with Fatigue Prevention Factor (FPF). Its deficiency is the cause of the very widespread pathology which I described.

This term characterizes the pathological syndrome more accurately than the previous one.

The powerful protective effect of FPF is defined by its replacement action, i.e., it exogenously liquidates its endogenic deficiency.

As with all endocrine diseases, the instant treating effect proves its hormonal genesis.

Thus for the first time, the origin and principles of effective treatment of this widespread clinic form of the fatigue condition of the organism have been established.

Fatigue prevention factor could be used in many diseases and for the adaptation of the organism to extreme situations (space, travel, sports, army etc). The result of our studies in veterinary medicine, oncology, and stress confirms this possibility. In order to achieve this goal it is necessary to work out appropriate medical preparations. The technological principles of the production of these preparations (for sublingual, intranasal, and injection introduction) have also been established.

In this book, we also underline the significance of the antifatigue function of the duodenum in the manifestation of fatigue action of food products and the well-known role of food in many diseases, including cancer.

It seems totally incredible that these two concepts - fatigue and food – might in some way be related, for we used to

associate food with strength, with life energy, and now we must speak in terms of weakness and fatigue.

Many people used to limit their food intake before intense mental and physical work. E. Wilow writes: "The reason for constant fatigue is very often seen elsewhere, when in fact it is caused by incorrect nutrition." An old saying goes: "No meal – no strength, after meal – got sick."

These examples from everyday life might be multiplied. At the same time, many clinical observations and experiments on animals prove that food intake and digestion weaken the individual, decreasing his resistance. This can be seen from numerous experiments which prove that at times, nutrition assists in the emergence of diseases and diminishes the stability of the individual.

All of this reveals a new way of fighting diseases and of developing new dietary regimens for health and sickness. For centuries, the struggle against the pathological reaction of the individual to food was limited to the introduction of a diet and the protecting of the individual from certain kinds of food products: "Don't eat this, it is forbidden." This appeal, constant and adjusted to fashion, is constantly heard, read, seen on television.

Undoubtedly, this limited principle plays a certain role in protecting the individual from the pathogenic effect of food. Unfortunately, however, the dietetic protection of the individual has thus far not solved the problem of preventing the potential damaging effect of food products. It is unlikely that in the near future, we will thoroughly comprehend the character of this effect of certain food ingredients, let alone their various combinations. It is especially unlikely when we take into consideration the culinary traditions among various peoples. We hope that our book will be helpful to new research on this very important problem.

In the appendix, my first publications on this problem are placed. Those scientific papers are in Russian with English summaries. They give the readers an opportunity to get an understanding of when and under what circumstances the author saw the problem of digestive fatigue syndrome and the

anti-fatigue function of the duodenum from the very beginning, which has received final illumination in this book.

In my work I was assisted by my coworkers at the clinic – Dr. Lidia Melnichenko, Dr. Inna Sheleketina, Dr. Svetlana Yagmur, Dr. Veronica Dormostuk, Dr. Ninel Chebikina, Dr. Lena Bogdanovich, Dr. Lyuda Averianova and members of the research project “Adaptive peptides“: oncologists Dr. Layma Griciute, Dr. Vitas Sniras, veterinary doctors Adolfas Burokauskas, Dr. Kazimiras Lukauskas, technologists Dr. Genricas Dudenas, Dr. Algis Podzhunas and Ionas Makauskas.

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