The Isopathic Influence of SANKOMBI on Susceptibility to Infection

Proved by Neopterin Value Change

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Introduction

The contact with different pathogenic germs takes place, naturally, more often at the beginning of life than in adulthood. Unavoidably, susceptibility to infection is thereby increased in this phase of life. Some studies on this problem show rather high correspondence referring to the frequency of infections in the individual age groups of childhood. According to these studies, infants and children to the second year suffer up to 12 infections year, children up to the fourth year 8-10, in pre-school years approximately 8 and in school days approximately 4 infections. The causant germs of these mostly banal diseases have their origin in the catarrhal mixed flora and are mainly of a viral nature (up to 90%). Thus, the first four years of life, including the phase of kindergarten time, are the years of greatest susceptibility to infection.

Experience shows that the proportion of chronically ill children in a pediatric practice amounts to over 30%, but here some exceptions in the course of infection have to be mentioned. In the first months of life, diseases of the nose and middle ear dominate; with increasing age, the place of disease changes to adenoidal vegetation and tonsillars. From the fourth to fifth year of life, the Sinus paranasales are affected principally. Outbreaks of Laryngitis subglottica or pseudocroup, the more frequent illness during the second year of life, definitely declines with increasing age.

If the yearly number of infections exceeds the Q.M. numbers, we talk of susceptibility to infections. From many years of experience, the values are assumed rather too high. But nevertheless, for reasons of standardization, they shall be accepted as control values.

An infection is a transmission, adhesion or entry of a microorganism as well as its reproduction in the organism. Susceptibility to infection indicates an overtaxing of the immune system, which is caused or increased by cardiopathy (Vitium cordis), lung (mucoviscidosis), renal illness, but however, in most of the cases by a disease of the intestinal cell milieu system (Pischinger). Mostly, the reservoir of pathogens lies in the intestine itself. Susceptibility to infection in its long-term course reminds of the curve picture of chronic diseases in general regulation according to Selye. Thus, a stimulus upon the reticuloendothelial system (RES) will normally be answered with a shock-anti-shock and recovery phase. The signs of chronic diseases are changes of single parts and reduction of the reaction range. Therefore, susceptibility to infection can mean:

- a real increase of individual infections per year;
- a temporal increasing of individual disease phases;
- a lack of individual phases (such as with the temporal increase);
- a missing recovery phase between the first and „recurrent“ disease.

Frequently, the acute exacerbations of chronic diseases are not recognized as such. An insufficient response to infection stimulation, and consecutively, the new flashing of complaints, are thus treated as a new „acute“ infection with an even stronger chemotherapy. In that way, help is only short term, often even without any effect at all. For each disease, especially concerning the susceptibility to infection, it is valid that:

- only in the reaction phase, that means only by diseases ending in „itis“, is the body able to manage the expulsion of noxae;
- by a reflex-therapeutical or homeopathic treatment the noxae dissolved in blood and lymph cause the toxin expulsion syndrome, which again abates at the latest after 48 hours and does not need any chemotherapy;
- the defense mechanisms of the intestine - bacteria and mucosa - are already irritated in their function before disease and all the more so during chronic attacks;
- concerning the control of chronic diseases: not enough importance is attached to a possible reduction of the patient’s range of reaction and in fact with a therapeutic restraint, which is already valid for children. The worse the general regulation, the more cautiously has to be treated.

The Cause of Susceptibility to Infection

The intestine is not only a digestive but also a predominant defense organ. The younger the organism,

the more the immunological organ is demanded. It consists of two compartments, the mucosa and the bacteria. Each of them alone is not able to perform neither healthy digestion nor strong defense. Additionally, the work of the pancreas is required for the optimal use of the symbiotic capabilities. Its enzymatic starting function as well as the buffering by bicarbonate are absolutely necessary factors of both compartments. This terrain, which is of a different nature from intestine segment to intestine segment is disturbed and over-charged, especially in infancy and childhood, by feeding large quantities of foreign antigens such as cows' milk and hens' eggs.

These disturbances are the early cause for the later appearance of chronic diseases, because each early additional feeding of foreign milk due to the lack of nursing before the ninth month of life consecutively causes a change in the bacterial colonization with

- the body's processing of other-natured foods and an increase in antigenic structures;
- extensive destruction of the mucosa with malabsorption, persorption of germs and Candida as well as with the loss of enzymes;
- the overcharged capability of the pancreas' buffering and enzymatic secretions.

Some Aspects Concerning Immunology

In spite of the correctness that antigenicity increases with the quantity of the supplied immunogens, the following facts have to be considered: In order to prevent permanent overcharge of the organism, especially of the shock organ (intestine), the immunological phenomenon of tolerance, "masking", occurs. High antigen doses (high-dose tolerance) as well as lower doses (low-dose tolerance) can paralyze a lymphocyte, so that it does not recognize the "epitop". Missing stimulation in infancy is rather a high-dose tolerance. Masking means a clinical condition without complaints around the shock-organ, however, with a histamine output by corresponding organs.

For all present diseases, the macrophages are a first order defense mechanism. Normally, they recognize a pathogenic invading substance (such as bacteria and viruses) and phagocytose it. During this process, parts of the external and internal structure of the bacteria or virus are developed at the surface of macrophages and can be read from T4-helper cells. As a result, these cells begin to produce and emit lymphocines and monocines. These signals stimulate T8-killer cells and B-cells to reproduce themselves. The T8-killer cells destroy the infected cells and the B-cells produce antibodies. While the B-cells are specialized against free antigens in blood and lymph, the T-cells and messenger substances are important for combating the intracellular pathogens.

The bacteria or viruses wrapped initially by macrophages are able to survive and reproduce in the inside of these cells for a long time. The macrophage is able to perform the guzzling work only after activation by lymphocines. Without an output of lymphocines by T4-cells, there is no guzzling activity of the macrophages!

The Importance of Neopterin Measuring

Beside the neopterin values, which are already used and known as tumor markers, further immunological mechanisms have been evaluated as parameters in a study. This was only used for control of possible other immunological disturbances, such as the functional loss of immunocompetent cells or of too low cell numbers. The lymphocyte differentiation including the subpopulation of T4/T5-cells changes considerably more slowly and reacts against the acute conditions more lethargically than the neopterin values in blood. Furthermore, diagnosis of the neopterin values in blood is less expensive. For the analyst, the only basic requirement is that the blood serum has to be kept in the dark until its final processing.

The numerous measures of the neopterin values in blood made on more than 200 children of 1 to 14 years definitely show age-dependent, though not sex-specific values (statistical mean, *see tables*). These measures show that the organism has to work with the environment mostly in the first years of life and thus, the average values of neopterin in blood reduce with increasing age correspondingly. Increased values

of neopterin in blood appear in the case of etiological different diseases as signals of a T-lymphocyte activity, such as immune markers for cancer, leukemia and polycythaemia vera. In the different variations of hyperphenylalaninaemia, the neopterin values in urine can be considerably higher. A clearly reduced neopterin value in blood definitely shows a paralysis or lack of macrophage stimulation by T4-cells. For chronic susceptibility to infection, two important criteria are to be borne in mind:

- in most cases, the affected children are nursed no longer than three months and show clear functional disturbances of the intestine in the sense of an allergy and/or dysbiosis;
- additionally, the neopterin values in the blood are below the corresponding means.

Standardization of Tests

For test standardization, all test persons received food without hens' eggs, cows' milk, nuts and without products which included those substances. Furthermore, all test persons received a mixed preparation in the homeopathic dilution 5X, namely the preparation SANKOMBI by SANUM-Kehlbeck, which consists of the two molds *Mucor racemosus* and *Aspergillus niger*, as is well known. This biological therapy not only influences the compartments "mucosa" and "bacteria lawn" of the immune organ "intestine", but also promotes the further transport of the metabolic products through lymph and blood systems.

The improvement of clinical complaints and serological parameters (leucocytes, differential blood picture, blood sedimentation reaction, IgA and IgG) achieved with this therapy in children with susceptibility to infection presents the question in what way this combination preparation influences the immunological system. It is especially interesting whether immunomodulation is generally possible by means of this therapy.

The study with the test persons showed: An increase of allergies if one was not nursed for 9 months and instead of this, the „artificial product" cows' milk was given, and if there were fetal immunological errors. Furthermore, a disturbed terrain becomes apparent by means of different factors such as by enteral allergies, infestations, incorporation, general diseases, iatrogenic disturbances, infections and lack of trace elements.

The Study and Its Statistical Evaluation

As a test hypothesis, it was assumed that between SANKOMBI and neopterin, a significant connection exists in such a way that SANKOMBI acts on the T-cells forming neopterin, whereas neopterin is a messenger substance which leads to an increase of immunity by the activation of macrophages. The measurement of neopterin values was carried out during a period of 2 years on 200 children of 3-14 years. The calculated mean value classified according to age showed the following values *(Table 1)* in nanogram:

No.	Age	Neopterin content					
		before/frequency		during/frequency		after/frequency	
1	3	0.7	1	1.0	1	1.2	1
2	3	0.5	-	0.8	1	1.0	1
3	4	0.6	-	0.7	1	0.78	1
4	5	0.5	-	0.6	-	1.0	1
5	5	0.7	1	0.8	1	1.0	1
6	5	0.6	-	0.7	-	1.1	1
7	6	0.9	1	1.1	1	1.4	1
8	6	0.5	-	0.69	-	1.8	1
9	7	1.6	1	1.9	1	2.14	1
10	7	1.6	1	2.0	1	2.15	1
11	8	0.6	-	0.71	-	0.9	1
12	8	0.6	-	0.7	1	1.1	1
13	8	0.5	-	0.65	-	0.68	-
14	9	1.1	1	2.1	1	3.78	1
15	10	0.22	-	0.42	-	0.68	-
16	10	0.41	-	0.72	1	0.98	1
17	10	0.6	-	0.8	1	1.4	1
18	11	0.7	1	0.7	1	0.97	1
19	12	0.4	-	0.9	1	1.25	1
20	13	0.46	-	0.48	-	0.5	-
Total amount of frequency		7		13		17	

Table 1

Tolerance Range of the Neopterin Values in Nanograms			
3 years old	0.7	-	2.20
4 years old	0.7	-	2.08
5 years old	0.7	-	2.03
6 years old	0.7	-	1.96
7 years old	0.7	-	1.94
8 years old	0.7	-	1.90
9 years old	0.7	-	1.65
10 years old	0.69	-	1.47
11 years old	0.55	-	1.02
12 years old	0.55	-	1.02
13 years old	0.55	-	1.02

Table 2

The values represented in *Tables 1 and 2* were achieved by the evaluation of four measuring lines, with a measuring line being carried out every six months. The results were recorded by computer. Up until now, there is literature available on studies regarding the calculation of normal values. A fictitious normal value of 0-2.5 was assumed. A random sample of 20 children was used for statistical purposes. Here, three observations were made, namely: the first observation before intervention, a second observation during and a third observation after intervention.

The intervention consisted of the administration of 20 drops of SANKOMBI 5x drops per day for 14 days. The first observation was made one week before the intervention began, the second during the intervention on the seventh day, and the third observation after the intervention was completed. Administration was made at 11 o'clock each morning in the same room and under the same conditions. The random sample consisted of two children aged 3 years, one aged 4 years, three aged 5 years, two aged 6 years, two aged 7 years, three aged 8 years, one aged 9 years, three aged 10 years and three children aged 11-13 years.

In order to find out whether the variable (= administration of SANKOMBI) had caused a difference in the neopterin content in the random sample during and after the intervention or whether the difference was accidental, the random samples were compared with each other employing the so-called CHI-quadrate-test. This test, used in medicine statistics, is a significance test without any direction, which reliably shows the probability for the dimension of the deviation but does not find their direction.

The test evaluation based on two different comparisons of random samples was performed under the condition that after mathematical rejections of the zero-hypothesis, it can be assumed that the frequency of characteristics of two random samples is not accidental, but the variable (here the administration of SANKOMBI) had caused the difference between both groups. From the CHI-quadrate-test, it followed (freedom degree of df = 1, probabilities of less than 1% or 5%, respectively) that the determined frequency distributions were purely accidental.

Thus, there is a connection between the administration of SANKOMBI and the neopterin content which, in one case was considered as "very significant" and in the other case as "significant". However, from statistical calculation, it followed that the time variable plays an important role, because the result was only "highly significant" after the administration of SANKOMBI for 14 days.

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