## **OPENING DISCUSSION BY**

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It is not possible, as Dr. Schröder said, to demand specially staged quantities of proteins in single reaction types of Lung tuberculosis, in accordance with his Table: 120-180grm.

The precise N-tables (Klemperer, Mathes, and Grafe), in fever-free and feverish patients with lung tuberculosis have shown that the N-metabolism is raised up to 26-30 per cent. It is still commonly thought that this deficit must be compensated.

After many years of experiments, I have proved as regards the dietetic therapy of lung tuberculosis, that it is not only better for the diseased body to leave this deficit unrepaired, but, further, to enforce still lower N-metabolism. Through diminished supplies, on the average 67gr. (see M.m.W., 1930, No. 23), the body should reach its N-equilibrium.

Until now, this is only known practically for lung tuberculosis, but it has not been experimentally demonstrated. We do know, however, that the healthy human body has a powerful adaptability within the N-metabolism, though the experimental proofs of bodies that have become chronically ill are still missing.

The restriction of the carbo-hydrates by the dietetic therapy is, generally, not so much disputed, likewise the, necessity of increasing the fat doses. We have, further, accustomed ourselves not to pay so much attention to the necessary amount of calories as before. I suggest, when estimating the protein metabolisms, to leave such a calculation out altogether.

The general condition of the disease deserves more notice. In difficult cases, it is desirable to attain the optimum of quantity of the partaken food. The body itself regulates its medicine, the nutritive matters. The doctor watches over the selection; compulsion is damaging; incitement and encouragement are useful, sometimes necessary.

The NaCl values (mentioned in a different connection), of 3-4-5gr. daily urine content, I have also found in lupus, and bone and joint tuberculosis. In lung tuberculosis, in my cases, greater values were found, periodical, rather than lasting ones. Values to 10-12-14gr., particularly in cases that are recovering. Sometimes, there was an over normal ascending NaCl excretion at the beginning, but only for a short time, and returning later after weeks; sometimes, it only appeared following a long interval. In these cases, an amelioration, though, of course, a slower one, can be expected. But should the NaCl excretion be less, and should it not become greater, then it is questionable whether the dietetic therapy can be of any help (in cases complicated by Amyloidosis, intestinal tuberculosis, kidney diseases, or the absence of the necessary lung surfaces, etc.). Clinically, there are many other factors connected with NaCl excretion; the amounts and types of proteins play hereby their parts, especially their end-products during intermediate stages of assimilation. It is not the same thing whether we give fleshy meat, liver, or sweetbreads; milk and eggs have different effects than, say, Swiss cheese. The sick body receives through the dietetic therapy, later on, a particular sensitiveness, and in periods of 4-5 weeks, there are days in which some patients refuse to take the usual quantities of solid nourishment. An increase in NaCl excretion is not necessarily bound together with a larger giving off of H<sub>2</sub>O.

I presume that the higher NaCl excretion is accompanied by a Ca retention. My four Ca tables show this to be probable.

Finally, the Cl tables in lung tuberculosis show that, perhaps as in Lichtwitz's opinion, all kinds of events may have an influence on Cl excretion. This brings us again to a consideration of the entire sick body.

To sum up, one can imagine the influence of the dietetic therapy as follows: Through the solution and excretion of toxins, primarily, the endocrine system may be activated. Hereby the autonomous nervous system becomes transformed in certain functions, and similarly, the mineral metabolism in its ionic state gets changed; in consequence of this, the colloidal state of fluids and cells is brought to a point where the morphological work for healing processes can be started.

This transformation of the constitutional reactions, now known as the biological transformation, can be proved by a number of changes of the organisms in response to certain irritation, e.g.: reformation of dilated capillaries to the normal, an increase in susceptibility to various medicaments, as well as ointments, a higher sensitiveness against radium, X-rays, and artificial sun rays.

The organism shows in its entirety a greater sensitiveness, the sedimentation of the red globules becomes faster; the scheme of the quantitative blood compound demonstrates a phase of defence.

Dörffel (Dermatological Clinic, Königsberg University) has shown by a large number of experiments on patients suffering from lupus the criteria of the changed tissue reactions, especially the high degree of development of reticulo-endothelial elements.

All these previously stated facts could justify the supposition that the processes evolved by the diet are able to change the character of the inflammation.

The influence of the biological forces activated by the dietetic therapy is inhibited in cases complicated by tuberculous processes with extraordinary grave mechanical movements, such as, very large cavities bordering the chest wall; cavities situated in the summit of the upper lung lobes; or cavities in lungs where the shrinking process is made nearly impossible by greatly extended pleural adhesions.

These facts show that, though the dietetic therapy as a fundamental form of treatment of pulmonary tuberculosis does not admit any restrictions of the indications, the experiences gathered from a large material have taught us to perceive certain boundaries founded on the particulars of certain cases in which a surgical therapy might be indicated.

If we push the dietetic therapy as a conservative treatment into the foreground again, then, in my opinion, we shall be able to avoid surgical help, or, at least, to restrict surgery a great deal.