Press Release

Future prospects for inflammatory bowel disease

Predictive medicine: Using biomarkers to predict the success of therapy

Milan. **Over the past few years, the therapeutic possibilities for inflammatory bowel diseases (IBD) have expanded considerably. This trend looks set to continue in the future. For this reason, the question of when which patient should receive which therapy is becoming even more significant. "To this end, we need predictive strategies and biomarkers which will help us predict the success of treatment which is carried out with the corresponding medication," explained Prof. Dr. Silvio Danese, Rozzano (Italy), as academic organizer of the Falk Foundation e.V. Symposium 213 in Milan (Italy). When it comes to treating IBD, predictive strategies could be the foundation on which a targeted, personalized medical approach could genuinely be established.**

With Crohn's disease and ulcerative colitis, we are dealing with very complex clinical pictures which demonstrate a high degree of heterogeneity in their clinical characteristics. The illness manifests based on a genetic predisposition which, nevertheless, is based on a wide range of genes. So far, around 250 candidate genes have been identified and associated with the emergence of IBD, explained Dr. Vito Annese, Dubai: "However, genetics is just one of many players in the pathogenesis of IBD".

Understanding the functional network

In his opinion, those wishing to understand why Crohn's disease and ulcerative colitis develop need to observe the entire functional network of the pathogenesis of IBD. In addition to genetics, this includes many different environmental factors. Among others, the microbiome and the body's own immune system play an important role (see fig.). "However, in doing so, we must always bear the potential interactions between the various components of this functional network in mind," emphasized Annese in Milan.

eickhoff kommunikation, Probsteigasse 15, 50670 Cologne, Contact: Dr. Maria Ruppert
Tel.: 0221-995951-30, Fax: 0221-995951-99, E-Mail: ruppert@eickhoff-kommunikation.de

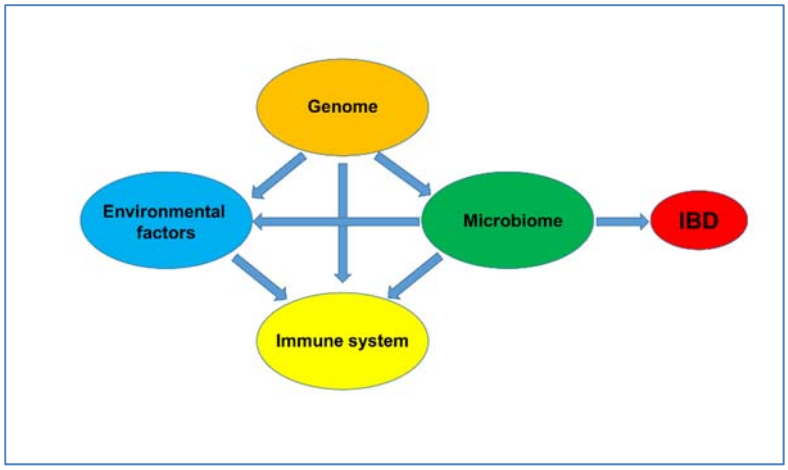

Fig.: When it comes to IBD, we are dealing with complex clinical pictures (modified in accordance with Fiocchi C. Dig Dis. 2014; 32, Suppl 1:96–102)

What's more, identifying a general genetic marker is not enough. Rather, true understanding is dependent on the genetic signatures in the mucosa and on the signaling pathways and regulatory mechanisms which are controlled by these. According to Annese, these genetic signatures have more informative value when it comes to IBD: "Using genetic expression profiles, we can probably predict, for example, whether a patient will respond to biologics or not".

Is it time to redefine IBD?

If the research approaches which have been followed thus far continue to be pursued, sooner or later, it will become necessary to come up with a new definition for IBD. For example, the diagnosis of "Crohn's disease" will no longer be sufficient. Rather, distinctions will have to be made between various forms of the illness, such as

- fistulating Crohn's disease,
- stricturing Crohn's disease,
- Crohn's disease with perianal complications
- and a form of the disease which does not respond to anti-TNF strategies.

Making more concrete distinctions between patient profiles will also be something which will need to be addressed for ulcerative colitis. As examples, Annese named a form of the illness which is refractory to medical therapy, a form of ulcerative colitis which does not respond to anti-TNF treatment, and a form of ulcerative colitis with a late onset. Such differentiations will lead to distinct therapeutic approaches which are oriented towards the individual situation.

Optimizing therapy, instead of directly escalating it

However, against the background of these new treatment strategies for Crohn's disease and ulcerative colitis which are being branded as future prospects, the active agents which have already been developed will not lose their significance.

eickhoff kommunikation, Probsteigasse 15, 50670 Cologne, Contact: Dr. Maria Ruppert
Tel.: 0221-995951-30, Fax: 0221-995951-99, E-Mail: ruppert@eickhoff-kommunikation.de

This was made clear by Prof. Dr. Axel Dignass, Frankfurt, with the example of ulcerative colitis. Mesalazine (e.g. Salofalk®) is the standard treatment for inducing remission and for the maintenance therapy of a mild to moderate illness. “We can adequately treat the majority of patients with this medication,” emphasized Dignass.

This is also supported by the fact that mesalazine is available in various forms of application: orally in the form of tablets or granules, as well as rectally in the form of suppositories, enemas and foams. Depending on the location of the inflammatory reaction, these can also be used in combination. According to Dignass, the effectiveness of the treatment can be increased through the combination of various forms of application: “In most patients, we achieve mucosal healing, as well as a long-term improvement in their capacity to work and their quality of life”.

Questioning adherence

Should the expected therapeutic success not appear, the patient’s adherence is to be questioned first and foremost, before treatment is escalated. Opportunities to improve compliance are presented as early as at the prescription stage. Here, it should be borne in mind that, for patients, it is easier and more feasible to take medication once daily instead of multiple times a day.

In addition the patients must be made extensively aware of the importance of compliance. Thus, they should be clear about the fact that the effectiveness of medical therapy can be significantly improved through good adherence. Furthermore, it may contribute to prevent an escalation of therapy from becoming necessary, as well as to preserve the patient’s quality of life and capacity to work. In addition, the development of colorectal cancer can also be prevented as a result of the chemopreventive effects of mesalazine.

Source: Symposium 213 “**Tailored Therapies for IBD: A Look into the Future**”
Falk Foundation e.V., 5th-6th October 2018 in Milan

eickhoff kommunikation, Probsteigasse 15, 50670 Cologne, Contact: Dr. Maria Ruppert
Tel.: 0221-995951-30, Fax: 0221-995951-99, E-Mail: ruppert@eickhoff-kommunikation.de