Press Release

Progress on many levels
Hepatologists see bright prospects for the future

Essen. In some areas of hepatology, such as the treatment of hepatitis C, there has been enormous progress during the last few years. But hepatology appears to be entering a new era in other fields as well. Other relevant advances in diagnostics and therapy have clearly come within feasible reach for a variety of hepatological disease patterns. At a workshop of the Falk Foundation e.V., in the run-up to the annual conference of the German Association of the Study of the Liver (GASL) in Essen, international experts discussed the issues of which diseases will potentially be affected by the progress, how relevant these advances are and where questions still remain unanswered.

The future prospects are positive for both viral and non-viral liver diseases. For example, the breakthrough has already been made in the treatment of hepatitis C: “This is the only chronic liver disease for which we can now achieve a total cure”, reported Conference Director Prof. Guido Gerken, Essen.

Relevant advances instead of therapeutic nihilism

According to his remarks, the therapeutic nihilism that was previously frequently invoked is now a thing of the past. “We understand the pathogenesis of liver diseases better than ever nowadays and that extends down to the molecular level. This is being reflected in progress in diagnostics, but also in therapy and that is not just with hepatitis C, but also with other viral and fibrotic liver diseases”, said Gerken.

On the other hand, however, challenges in hepatology are growing as a result of the almost epidemic-like increase in incidence and prevalence of non-alcoholic fatty liver disease (NAFLD). This has long since become one of the central causes of chronic liver diseases and is regarded as a trigger for the formation of non-alcoholic steatohepatitis (NASH) and of liver fibrosis with the risk of progression to cirrhosis of the liver and to hepatocellular carcinoma (HCC).

Benefiting from advances in cholestatic liver diseases

But progress is also emerging in NASH, in which the hepatologists are clearly benefiting from the lessons learned in primary biliary cholangitis. In current studies active agents that have proven to be efficacious and safe for the
treatment of cholestatic liver diseases appear to have potential therapeutic significance for NASH as well.

There are also advances in liver fibrosis, in which more precise classification is urgently needed, according to Gerken: “We have to differentiate liver fibrosis according to whether it is associated with a fatty liver or not, and whether it is accompanied by inflammation processes and/or is rapidly progressive”. Depending on the respective etiology, there is a good chance of regression. For example, in the case of alcoholic liver fibrosis regression can be achieved by abstaining from alcohol, and in the case of hepatitis-B-induced fibrosis by means of an antiviral therapy.

**Liver fibrosis – a dynamic disease pattern**

There is now also a better understanding of the pathogenesis of liver fibrosis. According to Prof. Detlef Schuppan, Mainz, it is becoming increasingly clear that this is a dynamic process in which different cell populations can be involved. This includes cells that promote fibrosis as well as cells with fibrolytic properties. The latter are an important starting point for the development of new pharmacological options for induction of regression.

At present, several active agents with antifibrotic properties and different modes of action are being tested in clinical studies. This is prompting hope of identifying substances that can effectively cause fibrosis, and possibly even cirrhotic changes, to regress. It is, however, unrealistic, says Schuppan, to put all one’s eggs in one basket: “An effective antifibrotic therapy will probably only be achievable by combining different approaches.”

Parallel to the testing of pharmacological targets, intensive research is being carried out regarding biomarkers. The aim in this is on the one hand to be better able to assess the individual risk of the patient, and on the other to be able to realize a personalized therapy of liver fibrosis in the future.

**A ray of hope in hepatocellular and cholangiocellular carcinoma**

According to Gerken, there is still a substantial need for research into cancers in the field of hepatology, such as hepatocellular carcinoma (HCC) and cholangiocellular carcinoma (CCC). The treatment options for these two tumorous diseases are currently limited.

There is, however, says Prof. Robert Thimme, Freiburg, justified hope of improved treatment options for HCC, with the use of cancer immunotherapy. This applies, according to Prof. Gregor J. Gores, Rochester/USA, just as much for CCC, which is currently also the object of intensive research activities. Here, it is necessary to differentiate between intrahepatic, perihilar and distal CCC. The
individual tumor forms differ as regards the molecular changes and the signaling pathways essential for stimulating tumor growth. This may need to be taken into account in future treatment strategies.