Sunitinib may slow growth and spread of liver cancer

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Treatment with sunitinib slows tumor growth and reduces the risk of metastasis in patients with hepatocellular carcinoma, an aggressive cancer of the liver, researchers report.

“Patients with this type of liver cancer have a very poor prognosis and the only currently available therapy is sorafenib. This study shows that we may be able to effectively use sunitinib with manageable side effects,” said Andrew X. Zhu, M.D., Ph.D., director of liver cancer research at Massachusetts General Hospital Cancer Center. “Giving these patients more options would have a significant impact.”

Hepatocellular carcinoma is a cancer that relies heavily on blood vessels for growth; sunitinib controls the growth of blood vessels and could therefore potentially play an important role for treatment, Zhu says.

Researchers enrolled 34 patients with advanced liver cancer and gave them 37.5 mg sunitinib daily on a standard four weeks on, two weeks off regimen. Sunitinib is a small molecule tyrosine kinase inhibitor that targets multiple receptors, including VEGFR2, c-Kit and FLT3. These receptors may be present in cancer cells as well as in endothelial and immune cells.

By 12 weeks, one patient had a partial response and 17 patients had stable disease. The median progression-free survival was four months and the median overall survival was 10 months.

“Results are still preliminary, but there is clear evidence of an anti-tumor activity in these patients,” Zhu said.

Researchers also measured changes in tumor vascular permeability using MRI, because the abnormally increased leakage of plasma from blood vessels in tumors is causally related to pathways blocked by sunitinib. They found that permeability decreased after treatment with sunitinib by 40 percent compared to measures taken at the start of the study.

Circulating progenitor cells, a potential measure of the risk of cancer spread, also were reduced with sunitinib treatment, Zhu says, noting that an increase in circulating progenitor cells during treatment appears to be associated with significantly increased mortality.

Researchers report that the patients tolerated the sunitinib treatment. High levels of SGOT and SGPT liver enzymes were noted in 18 percent and 9 percent of patients, respectively. Blood disorders such as neutropenia (12 percent of patients), lymphopenia (15 percent) thrombocytopenia (12 percent) and hyperbilirubinemia (6 percent) also occurred at low rates. Fatigue was observed in 9 percent of patients and hand-foot syndrome in 6 percent of patients.

Source: American Association for Cancer Research