Plasmodium infection inhibits tumor angiogenesis in a murine model of hepatocellular carcinoma

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Video Byte

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Abstract

Hepatocellular carcinoma (HCC) is one of the leading causes of cancer-related deaths worldwide. Treatments for HCC are limited, and the survival rate remains low. Now, a new study suggests a novel treatment that relies on a unique method of preventing tumor growth. The study focuses on Plasmodium, the parasite that causes malaria. Interestingly, infection with Plasmodium can boost immune cell function, and Plasmodium infection is known to have an antitumor effect. Researchers used a mouse model of HCC to examine the effect of Plasmodium infection on HCC progression. Their results showed that Plasmodium infection efficiently inhibited tumor progression and prolonged survival. Plasmodium infection suppressed tumor angiogenesis, cutting off the tumor's blood supply. Plasmodium infection also reduces the number of tumor-associated macrophages through malarial pigment. These macrophages help to build blood vessels within tumors. While further research is needed, the results suggest that Plasmodium infection may effectively inhibit HCC progression, providing important insight for the development of new therapies for HCC.