How can we know early who will benefit from tumor target therapy?

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The precise tailoring of tumor target treatment for patients with cancer is an unmet challenge. The goal is to only administer treatments that have a high probability of being effective. Modern cancer care is critically dependent on imaging technologies, which are used to detect tumors early, when they are easier to treat, and to guide therapy or surgery.

Vascular endothelial growth factor (VEGF) and EGFR inhibitors have become key components of therapies for several tumor types. Close relationships between these two factors exist: VEGF signaling is up-regulated by EGFR expression and, conversely, VEGF up-regulation independent of EGFR signaling seems to contribute to resistance to EGFR inhibition. Therefore, inhibition of both pathways could improve anti-tumor efficacy and overcome resistance to EGFR inhibition.

A research article to be published in the December 7 issue of the *World Journal of Gastroenterology* addresses this question. The research team, led by Dr. Sun from Minnan PET Center, used FDG PET/CT to monitor early responses, followed by EGF-receptor antibody (Cetuximab) plus recombinant human endostatin (Endostar) treatment.

One conclusion reported by the investigators is that molecular imaging could monitor molecular treatment, and that the combination of EGFR-specific antibodies with VEGF-specific antibodies may be a promising combination for palliative treatment.

Another interesting conclusion is the potential of this novel approach to

anticancer therapy. Monitoring responses algorithm by PET/CT will be elucidated by large, ongoing clinical trials. Molecular imaging continues to tell us the exciting results of molecular therapy for cancer.

Source: World Journal of Gastroenterology