

An intriguing article earlier this week in the *New York Times** described a novel use of the drug bevacizumab (Avastin) for treatment of glioblastoma, one of the most deadly brain tumors. (Bevacizumab, as reported earlier this year, has shown promise in early stage trials to target NF2 vestibular schwannomas).

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New York Times

reports that Dr. Howard Riina and Dr. John Boockvar at New York Presbyterian/Weill Cornell have 'sprayed' bevacizumab directly into the brain through a microcatheter in order to directly target the tumor site. The patient reported in the news article was the second person to undergo this procedure.

The study is still in Phase I (safety). Five patients had been treated as of mid-November.

The study addresses an age old question – if you give a patient a pill or injection, how do you know the drug is reaching its target - - especially if the drug dose has to be limited to prevent potentially toxic side effects? Brain tumors are especially challenging as drugs must cross the challenging blood brain barrier.

In Dr. Riina's study, bevacizumab is delivered in conjunction with the drug mannitol which acts to temporarily 'open up' the blood brain barrier and facilitate the influx of drug to the tumor region.

The microcatheters employed are

fine, highly flexible tubes; these were originally developed to deliver clot-dissolving drugs to the brain to treat strokes.

While this study is assessing application of this technique to glioblastoma, the technique might also be useful for other tumors or neurological disorders like multiple sclerosis or Parkinson's disease.

* Breaching a Barrier to Fight Brain Cancer. *New York Times*, November 17.