



LN 37-11866-
04

DW 03035003

September 29, 2005

Sandra Gabriel, Senior Health Physicist
Division of Nuclear Materials Safety
U.S. Nuclear Regulatory Commission, Region I
475 Allendale Road
King of Prussia, PA 19406

Dear Ms. Gabriel:

Here is the explanation of the treatment planning process on our recent patient which you had asked for.

The patient was treated with 2 shots on Aug 18, 2005, before the Gamma Knife became inoperable. The remaining three shots of the patients plan were not able to be delivered. At this point, the Gamma Knife team assessed the dose received by the patient from the two delivered shots. The prescribed isodose line of 12 Gy, 50 % of the maximum dose of 24 Gy, did not sufficiently cover the radiographically visible tumor. The maximum dose that had been delivered to the patient's tumor was 17.6 Gy. On Aug 25, 2005, the patient was brought back and a frame was applied and the patient was re-scanned. The location of the first two previously delivered shots was determined anatomically on the patients scan by comparing the images from Aug 25 to the images and shot locations from Aug 18. The shot time delivered from the original two shots was entered into the Aug 25 plan. This allowed us to determine the dose that had already been delivered. We then completed the plan by placing three more shots, until a satisfactory dose distribution had been achieved. The second group of three shots was delivered.

*elab.
8 Gy
the
50%
isodose
line*

Please let me know if you need further clarification of this patient's treatment.

Sincerely,

Charles J. Fuller, Ph.D.

Charles J. Fuller, Ph.D., D.A.B.R.
Medical Physicist

Cancer Center

Lancaster General Health Campus • 2102 Harrisburg Ave. • P.O. Box 3200 • Lancaster, PA, 17604
(717) 544-3113 • Fax (717) 544-3111 • www.LancasterGeneral.org