AIM OF THE STUDY: The aim of this study is to test the effect of low dose radiation on the subfoveal neovascular membranes (SNVM) and to analyse visual acuity in age-related macular degeneration.

METHODS AND PATIENTS: From November 1993 through to August 1994, 10 patients, on the one hand, were given a dose of 5 Gy followed by controls 6 weeks and 6 months later. On the other hand, 21 patients were treated with a dose of 8 Gy and were subjected to controls 6 weeks later. Before the radiotherapy and during the control sessions, all patients were required to be measured for different parameters of visual acuity and to receive a simultaneous fluorescein and indocyanine green angiography. The radiotherapy was done by a linear accelerator 6 MeV and through a lateral port 3 x 4 cm in half beam technic.

RESULTS: In the 5 Gy group, no changes in the parameters for visual acuity were noted in most cases after 6 months. In 9 of the cases, the membranes had increased in size and in 1 case, they had remained unchanged. In the 8 Gy group, no changes in the visual acuity or in the membrane size were diagnosed. Of all the patients treated, only one refused the angiography control.

DISCUSSION AND CONCLUSIONS: Given the low dose used and the period of observation, the visual acuity of all patients remained stable. The size of the membranes increased in most cases for those 5 Gy patients and in this respect, no changes at all were noted in the 8 Gy patients. In order to better evaluate the potential of radiotherapy, this study must be pursued and coupled with further studies analysing the effect of different doses on patients.