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Abstract
The external photon beam radiotherapy should be carried out in a way to achieve an "as low as possible" a dose in healthy tissues surrounding the target. For the scope of protection against undue exposure to ionizing radiation it is necessary to determine radiation dose to specific body organs and tissues. Heart as a surrounding organ in stomach cancer radiotherapy, will be exposed to rays during this process. By considering its vital role in pumping blood to different tissues (about 2000 gallons per day), the insufficiency of exposure to gamma rays may show itself sensibly. A collimator has been suggested to reduce absorbed dose in heart about 36% and a reduction of about 85% in heart zone.

Introduction

Although it has been generally accepted since the mid-1960s that radiation doses of around 40 Gy or more can cause heart disease, in recent years it has been observed evidence of an increased risk of radiation-induced heart disease at doses below 5 Gy *(Taylor et al, 2006)*.

Fig. 1 shows the excess relative risk versus colon dose. It must be mentioned that the most important study has considered mortality in the survivors of the atomic bombings of Hiroshima and Nagasaki.