



In this special issue of “Turkish Journal of Oncology” we will discuss the details of brachytherapy with special emphasis on the experience in routine practice. Clinical case presentations, practical issues in the applications, and treatment planning will be presented in different scenarios. Physical and dosimetric properties of the applicators used in gynecologic brachytherapy within the guidance of ICRU 89 recommendations will be discussed thoroughly. In addition, quality assurance and deformable registration in gynecologic brachytherapy will be presented.

With the development of high tech equipment in external beam radiotherapy, it seems that the importance of brachytherapy in routine practice is being questioned in recent years. In particular, the advent of stereotactic techniques in external beam treatment leads several physicians to use these new techniques instead of brachytherapy in several tumor sites, although the efficacy of brachytherapy in these tumors was acknowledged for a century.

Brachytherapy is the most conformal radiotherapy with very high doses to the tumor or tumor containing cavities, lumens and the rapid dose fall off leads very low doses to the normal tissues in the vicinity. This highly conformal dose distribution leads to high local control and very low complication rates especially in the experienced hands. In contrast, the integral dose received by non-tumor tissue in the high tech external beam irradiation is significantly higher compared to brachytherapy, and this high dose may cause long term radiation induced secondary malignancies.

Brachytherapy requires expertise and all the radiation oncologists should know at least the indications of brachytherapy, how to do the applications and how to examine the dose distributions. In order to achieve this goal, the Gynecologic Oncology subdivision of the Turkish Radiation Oncology Society is conducting “Brachytherapy workshop” every 2 years. All the presentations are given by experienced physicians and physicists in this field, and these presentations are published in the Journal as a supplement.

We hope this supplement will provide you a new insight in the field of brachytherapy.

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