GUEST EDITORIAL

South African guidelines for cervical brachytherapy

Comment on "Brachytherapy for cervical cancer: Guidelines to facilitate patient-centred care in a multidisciplinary environment" (Deirdre Long, Hester Sophia Friedrich-Nel, and Georgina Joubert)

Brachytherapy is an essential component of the curative radiation treatment for cervical cancer. No additional treatment, including sophisticated EBRT techniques, such as IMRT and SBRT, can make up for the survival decrement from lack of brachytherapy as a component of definitive care. Overall survival was superior in patients who received brachytherapy (HR 0.554).[1] The procedure is invasive and uncomfortable at best. Intracavitary brachytherapy is associated with anxiety. Women need to be given detailed information before the brachytherapy application to reduce anxiety.[2] Sexual malfunction from ovarian failure and vaginal stenosis is common following treatment of cervical cancer, and sufficient counselling to enable the patients to manage sexual dysfunction is often neglected.

There are many patients who need this procedure, placing a huge burden on resources of oncology departments, especially those in the state sector. The age-standardised incidence rate (ASIR) of cervical cancer in southern Africa is 38.2/100 000.[3] Many institutions in the developing world use protocols with fewer doses of brachytherapy, such as 9.0 Gy x 2 fractions given weekly. In Johannesburg, we treat 750 new cancers of the cervix patients annually, using 2-D brachytherapy treating to point A and measuring the standard ICRU 38 rectal and bladder doses.

The authors are to be congratulated for the formulation of a comprehensive set of guidelines for cervical brachytherapy, which can serve as a national standard. The research incorporates a sufficiently large base of patients and medical professionals to power the study sufficiently and make their conclusions valid. The authors acknowledge that shortfalls of resources will not allow the guidelines to be fully implemented in every case, but striving to do so will certainly improve standards and the patient's experience of this uncomfortable but necessary procedure.

Incorporating the perspectives of patients is not commonly used to formulate guidelines, which usually emphasize the technical aspects of the procedure. However, these guidelines emphasize non-technical details that necessitate the consideration of patients' needs. This paper emphasises a patient-centric approach which will improve the patients' tolerance of the procedure, and hence compliance with treatment.

Consent is a legal requirement for all procedures. The authors show the importance of adequately informed consent of the patient for cervical brachytherapy, and sufficient time needs to be allocated to informing the patient on all aspects of the brachytherapy prior to treatment.

Furthermore, defining the roles and responsibilities of each member of the multidisciplinary team will also facilitate improvement in the technical aspects of the procedure, as well as improving communication amongst the team and between the team and the patient.

South Africa has a unique opportunity to do research in treating cervical cancer because, unfortunately, we have such large numbers of these patients. While better screening and the HPV vaccines will provide relief in the future, for now we should strive to provide the best treatment possible for these patients. The patient-centric guidelines proposed here form a good basis to start improving treatment, and can provide a basis for implementing cervical brachytherapy that is as comfortable for the patient as is feasible, while research is carried out to implement technically more sophisticated cervical brachytherapy, such as 3-D image guided cervical brachytherapy. Resource constraints of individual departments will have to be considered and guidelines adapted to make them implementable in each department with its own unique set of resource constraints.

While this paper does not explore the technical aspects of cervical brachytherapy, the international standard of care for cervical brachytherapy has changed from 2-D brachytherapy as described in ICRU 38[4] to 3-D image guided brachytherapy as described in the ICRU 89,[5] published in 2016, proposing more resource intensive brachytherapy, including detailed imaging protocols and volumetric analysis, and the use of interstitial therapy. ICRU 89[5] acknowledges that patients in resource constrained countries are usually treated with less complex radiotherapy methods. Therefore, minimum standards are also elaborated ('radiographic assessment') so these suggestions can be used in developing countries. Sub-Saharan Africa has the numbers of cervical cancer patients to define simpler imaging protocols, such as the use of ultrasound for volume definition. This represents a unique opportunity for our academic institutions to make an important contribution to the theory and practice of cervical brachytherapy.

It is noted that there is not a single African center participating in the multicenter international EMBRACE 3-D study. However, this study has shown that significantly improved outcomes can be achieved with 3-D brachytherapy. An overall survival benefit of about 10% is demonstrated in the retro EMBRACE report.[6] In order to explore these techniques we need to implement sound guidelines, such as the authors propose, to base our research on.

The technical aspects of cervical brachytherapy will not substantially change the perceptions of the patients and the roles of the various professionals involved as described in this paper as the procedure becomes more sophisticated, and these guidelines will still apply to a large degree to more technically complex brachytherapy. The patient-centric approach will ease the stress of these procedures for our patients.

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