

Transitioning from 2-D to 3-D Image-Guided Brachytherapy (IGBT) in Gynecologic Malignancies in the Philippines: Looking Back and Moving Forward

INTRODUCTION:

Brachytherapy is the standard treatment to achieve adequate tumor dose leading to better clinical outcomes. This paper aims to present the development, current status, clinical outcomes, as well as, obstacles in the use of brachytherapy specifically in the adaptation of IGBT in gynecologic malignancies in the Philippines.

METHODS:

A survey was done regarding the status of IGBT in the Philippines.

RESULTS:

In the Philippines, the 1st LDR manual-loading brachytherapy was launched at the Philippine General Hospital in 1962. Advancements included the 1s LDR remote afterloader (1985) and 1st HDR remote afterloader brachytherapy (1990's).

The concept of IGBT was introduced by Prof. Richard Potter through the 1st ESTRO-SEAROG-PROS teaching course (2009). 2 years after, the first IGBT was performed at JRRMMC. The Philippine adaptation of IGBT was strengthened by the RAS 6062 project of the IAEA in cooperation with PNRI, and reinforced by JRRMMC-IAEA National Training Course conducted by international experts.

International collaborations/trainings in IGBT were made possible through Forum for Nuclear Cooperation in Asia (FNCA) and Gunma University-Department of Radiation Oncology, Japan.

Since the introduction of IGBT in 2009, the number of radiotherapy (RT) facilities with IGBT capabilities has dramatically increased in the country. Currently there are 11 IGBT capable RT facilities across the country (NCR-7, Luzon-2, Visayas-1, and Mindanao-1) from the 18 centers with HDR brachytherapy units. Out of the 11 facilities, 8 of which started it's IGBT procedures namely: Jose R. Reyes Memorial Medical Center (2011), Makati Medical Center (2012), St. Luke's Medical Center –Global City (2012), University of the Philippines-Philippine General Hospital (2016), St. Paul's Hospital (2016), Asian Hospital and Medical Center (2016), St. Luke's Medical Center QC's (2017), and University of Santo Tomas-Benavides Cancer Institute (2017). As of April 2018, there are approximately 1644 procedures done using IGBT in the Philippines. The practice and art of which is significantly adapted by different centers in the country and the GEC-ESTRO guidelines were utilized for standardization of techniques, contouring, dose prescriptions and treatment planning by most centers tailored to their existing technical capabilities and preferences. The adaptation of IGBT in the country is still evolving as to clinical outcomes on local control, survival and treatment-related toxicities.

CONCLUSION:

IGBT continues to evolve and many centers across the country have adapted this technology. Clinical outcomes in the use of IGBT in the Philippines are expected to be reported with the widespread use of this technology.

Country or Int. Organization

Philippines

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