Radiotherapy and Oncology 84 (2007) 314—319
www.thegreenjournal.com

Cervical cancer

A regional cooperative clinical study of radiotherapy for cervical cancer in east and south-east Asian countries ☆,☆☆

Takashi Nakano[a], Shingo Kato[b,*], Jianping Cao[c], Juying Zhou[d], Raden Susworo[e], Nana Supriana[e], Shinichiro Sato[b], Tatsuya Ohno[b], Hisao Suto[f], Yuzuru Nakamura[g], Chul-Koo Cho[h], Fuad B. Ismail[i], Miriam J.C. Calaguas[j], Rey H. de los Reyes[k], Yaowalak Chansilpa[l], Kullathom Thephamongkhol[l], Nguyen Ba Duc[m], To Anh Dung[m], Hirohiko Tsujii[b]

[a]*Department of Radiology and Radiation Oncology, Gunma University Graduate School of Medicine, Japan,* [b]*Research Center Hospital for Charged Particle Therapy, National Institute of Radiological Sciences, Chiba, Japan,* [c]*Department of Radiation Medicine, Soochow University, China,* [d]*Department of Radiation Oncology, The 1st Affiliated Hospital of Soochow University, Soochow, China,* [e]*Department of Radiation Therapy, University of Indonesia, Dr. Cipto Mangunkusumo General Hospital, Jakarta, Indonesia,* [f]*Department of Radiology, Matsudo City Hospital, Japan,* [g]*Department of Radiation Oncology, Saitama Medical College, Japan,* [h]*Department of Radiation Oncology, Korea Cancer Center Hospital, Seoul, Republic of Korea,* [i]*Department of Radiation Therapy and Oncology, Hospital University Kebangsaan Malaysia, Kuala Lumpur, Malaysia,* [j]*Department of Radiation Oncology, St. Luke's Medical Center, Quezon City, Philippines,* [k]*Department of Obstetrics and Gynecology, Dr. Jose R. Reyes Memorial Medical Center, Manila, Philippines,* [l]*Department of Radiology, Siriraj Hospital, Mahidol University, Bangkok, Thailand,* [m]*National Cancer Institute, Hanoi, Vietnam*

Abstract

***Purpose*: Radiotherapy differed widely in east and south-east Asia because of technical, cultural, and socio-economic differences. With the purpose of standardizing radiotherapy for cervical cancer in the region, an international clinical study was conducted.**

***Materials and methods*: Eleven institutions in eight Asian countries participated in the study. Between 1996 and 1998, 210 patients with stage IIIB cervical cancer were enrolled. Patients were treated with a combination of external beam radiotherapy (total dose, 50 Gy) and either high-dose-rate (HDR) or low-dose-rate (LDR) intracavitary brachytherapy (ICBT) according to the institutional practice. The planned point A dose was 20—28 Gy/4 fractions for HDR-ICBT and 30—40 Gy/1—2 fractions for LDR-ICBT.**

***Results*: Hundred patients were treated with HDR-ICBT and 110 were treated with LDR-ICBT. The ICBT doses actually delivered to point A ranged widely: 12—32 Gy in the HDR group and 26—52.7 Gy in the LDR group. The 5-year follow-up rate among the countries differed greatly, from 29% to 100%. The 5-year major complication rates were 6% in the HDR group and 10% in the LDR group. The 5-year overall survival rates were 51.1% in the HDR group and 57.5% in the LDR group.**

***Conclusions*: Although there were several problems with treatment compliance and patients' follow-up, the study suggests that the protocols provided favorable outcomes with acceptable rates of late complications in the treatment of advanced cervical cancer in east and south-east Asia.**

Keywords: Cervical cancer; Radiotherapy; Developing country; International clinical study; East and south-east Asia

Cervical cancer is one of the most common malignant tumors in south-east Asia [11]. The mortality rate of the disease in the region is high, based on the fact that many patients present at a relatively advanced stage of disease. It is, therefore, of major importance for the public welfare of the region to develop and establish effective strategies of medical care for this disease. Radiotherapy plays a major role in the treatment of cervical cancer, and the combination of external beam radiotherapy (EBRT) and intracavitary brachytherapy (ICBT) is the standard treatment. Recently, concurrent chemoradiotherapy has been demonstrated for

☆ ''Application of radioisotopes and radiation for medical care'' under the Forum for Nuclear Cooperation in Asia (FNCA).

☆☆ *Financial support:* This study was supported by the national budget of Japan for the Forum for Nuclear Cooperation in Asia and the Research Project at the National Institute of Radiological Sciences.

0167-8140/$ - see front matter © 2007 Elsevier Ireland Ltd. All rights reserved. doi:10.1016/j.radonc.2007.05.012