



Service Priorities and Programmes Electronic Presentations

Convention ID: 212

Submitting author: Dr Man Fung Esther WONG

Post title: Associate Consultant, Pamela Youde Nethersole Eastern Hospital

Post Image Guided Brachytherapy- MRI Reduces Repeated Per-vaginal Examination and Cervical Biopsy

Wong Esther MF (1), Chang Amy TY(2), Cho Francis KY (1), Lai Bill MH (1), Soong Inda S (2), Law LY Ada (2), Yeung Rebecca MW(2), Tang KK (3), Khoo Jennifer LS(1)
(1) Department of Radiology, Pamela Youde Nethersole Eastern Hospital
(2) Department of Oncology, Pamela Youde Nethersole Eastern Hospital
(3) Department of Obstetrics & Gynaecology, Pamela Youde Nethersole Eastern Hospital

Keywords:

cervical cancer

brachytherapy

MRI

Post brachytherapy follow up

Introduction

Recent development in image guided brachytherapy (IGBT) using MRI guidance were adopted in our institution. Monitoring of patients receiving image guided brachytherapy for cervical cancer has been controversial. Traditionally this consists of repeated gynaecological examination and random cervical biopsy.

Objectives

To compare the efficacy of post IGBT MRI in detecting residual disease as compared with result of random biopsy.

Methodology

Locally advanced cervical tumor without distant metastases who received concurrent chemoradiation with whole pelvic radiotherapy followed by brachytherapy. Recent development in image guided brachytherapy (IGBT) using MRI guidance were adopted in our institution. Pelvic MRI were implemented at 3-6 months post radiotherapy, and cervical biopsy was performed near the time of MRI. Images on post radiotherapy MRI were reviewed by 2 radiologists, and signal at the cervix is scored according to extent of suspicion for residual disease (scores 1-3). The resulting scores were compared with the biopsy findings.

Result

17 patients diagnosed with FIGO IB2 to IVA diseases were retrospectively reviewed. 11 of the patients are rated disease negative (score 1) by both MRI reviewers, and their respective biopsies also confirmed negative findings. 6 cases were rated as either indeterminate (score 2) or frank residual disease (score 3) by

either of the two reviewers. Among the 6 abnormal radiological findings, two were subsequently proven recurrence and four patients were biopsy negative. Two out of 17 patients were histologically proven to have residual or recurrent disease at cervix and upper vaginal vault. Sensitivity and negative predictive value with MRI reaches 100% for detection of residual disease. Post radiotherapy MRI plays an important role in case selection for cervical biopsy to diagnose recurrent disease.