



Service Priorities and Programmes
Electronic Presentations

Convention ID: 71

Submitting author: Dr TING WONG

Post title: Resident, Princess Margaret Hospital, KWC

An appraisal of urgent magnetic resonance imaging service in diagnosing spinal cord compression

Wong T(1), Yeung TH (1), Lee CM (1), Fong CY (2)

(1) Department of Radiology, Princess Margaret Hospital, (2) Department of Radiology, Kwong Wah Hospital

Keywords:

Urgent MRI spine

Waiting time

Report turn around time

Reporting rate

Introduction

Spinal cord compression is a neurological emergency independent of its cause. Magnetic resonance imaging (MRI) of spine is the standard of investigation for diagnosis and guiding further management to prevent long-term disability due to irreversible spinal cord injury.

Objectives

(1) To conduct an appraisal of urgent MRI spine service and compare the results with previous similar study; (2) To study the causes of cord compression; (3) To evaluate patient's subsequent management after MRI.

Methodology

Retrospective review of urgent MRI spine requests conducted from July 1, 2010 – December 31, 2010. Indications for request, waiting time for MRI examination, imaging findings, patient's subsequent management and MRI reporting time were evaluated.

Result

Results: A total of 44 cases of urgent MRI spine were included. Average MRI waiting time was 9.8 hours. 97.7% of the MRI exams were performed within 24 hours, which shows a 7.7% improvement compared with previous audit by Wong et al in 2007. 100% reporting by radiologists was achieved, reporting time was on average 1.6 hour, with 97.7% reported within 72 hours. 58.8% of urgent MRI showed cord or cauda equina compression. Malignancy is the commonest cause of compression accounting for 48% . Patients presented with known malignancy were found to have the highest rate of cord compression (80%), highest rate of subsequent intervention (66.7%) and highest rate of early intervention (66.7% within 2 days). Conclusions: Vast majority of referred patients had urgent MRI spine performed within 24 hours with a timely report. Improvement of service is noted compared with results of previous audit. Malignancy is the commonest cause of spinal cord compression in our local population.

Reference: Wong C S, Chu Y C T, Ma K F J, Cheng L F, An appraisal of timely magnetic resonance imaging in diagnosing spinal cord compression, Singapore Med J 2009; 50(9): 894.