

P-038 Computed tomography referral practice - experience at a large academic hospital

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Objectives: To evaluate the current computed tomography (CT) referral practice with emphasis on correct clinical data and examination choice. Our second aim was to investigate turnaround times on all brain CT scans included in the study.

Methods: A retrospective analysis of all CT examinations in the radiology information system database was carried out at King Abdulaziz University Hospital, Jeddah, Saudi Arabia. This study was conducted six months after hospital wide implementation of the iRefer criteria, the Royal College of Radiologists imaging referral guidelines. The review included all adult and pediatric patients who had attended the emergency department, out-patients, or were inpatients and had a CT request during the period from July to September 2012. Clinical data and indication for all subjects were evaluated and analyzed.

Results: 2322 records were investigated, of which 1695(73%) were adults and 627(27%) were pediatric patients. The majority of requests were for brain (36.9%). Of those, 46% were requested by the Emergency department, (86%) adult and (14%) pediatric patients. The total number of examinations performed with inadequate clinical information was 111; among those were 17(15%) pediatric patient requests. Report turnaround time was 1 day with a range of 0 to 38 days.

Conclusion: There is a need to increase collaboration between clinicians and radiologists to follow appropriateness guidelines, attain dose reduction strategies, and avoid CT overuse. Changing the current referral practice will take time; however there are several forms of educational tools that could be used in raising clinicians' awareness on radiation dose from radiological investigations.

P-039 New intracranial tumors - when is visceral CT useful?

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Background: Majority of new intracranial lesions, in the absence of a known primary malignancy elsewhere are likely to be primary brain malignancy. Literature review suggests that intracranial malignancies rarely metastasize. Based upon this knowledge, we propose that 'staging' CT of the chest/abdomen/pelvis should not be undertaken unless suggested by the Neuro-oncology MDT.

Methodology: A retrospective audit was undertaken. MDT notes for a period of 6 weeks were interrogated. Data collected included demographics, site of the lesion, impression of the Neuro MDT, any staging investigations undertaken, treatment offered and final histology.

Results: A total of 147 patients were identified. 105/147 were reported as primary based on radiological appearances. 42/147 were identified as suspicious based on radiological appearances and/or history of extra-cranial malignancy. 26/105 (25%) primary appearing lesions underwent staging CT thorax, abdomen and pelvis – none of which revealed primary malignancy. 37/42 suspicious lesions underwent staging CT thorax, abdomen and pelvis – 19/42 (45%) revealed new primary malignancy or recurrence or existing disease. 10/42 metastatic lesions on radiology were confirmed to be primary. The rest were confirmed metastases.

Conclusions: Our study has demonstrated that 'staging' investigations in primary appearing lesions is unnecessary and puts extra pressure on already stretched radiology services. It should be noted that making a firm distinction between primary or metastatic lesions is not always feasible for general radiologist. Hence, unless there is a previous history of cancer, all cases should be discussed in the Neuro-oncology MDT before staging investigations are undertaken.
