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Study on the necessity of graphs in patients with trauma and some related factors in Imam Khomeini Hospital of Sari in 2013

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Introduction: Trauma is defined as any injury or harm which is caused by the collision of physical and chemical agents with body tissues. The accident patients due to their traumatic conditions are prescribed multiple graphs by their physician and because of these multiple graphs they are exposed to X-ray frequently that impose some risks to them. This study deals with the necessity of these graphs in trauma patients.

Methods: This study was a descriptive cross-sectional study which examined the requests of patients to the radiology department of Imam Hospital with a sample of 186 participant's in1391-1392. The injured organ form the patient's view was specified and after reviewing the correspondence between requests with injured areas and observing the results of graphs, the data were entered into questionnaire forms.

Results: In this study, 186 trauma patients were investigated. Of the patients, 67 (36%) had 5-8 graphs and 71 person (38.2 %) had 9-12 graphs. Besides, graph was performed on a total of 1670 patients and the average of graphs for each person was 10-11. The most frequent radiography was related to radiography of lower organs with a frequency of 750.

Conclusion: The average of graph for each patient was 10-11 and by this average number of graph, it could be understood that the received dose of patients is close to the maximum permissible dose which is announced annually in sources. With comparing the number of necessary graphs with unnecessary ones in trauma patients, it is concluded that these patients undergo some threats during radiography.

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CT-guidance interstitial 125 iodine seed brachytherapy as a salvage therapy for recurrent spinal primary tumors

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Background: Management of spinal neoplasms has relied on open surgery and external beam radiotherapy (EBRT). Although primary spinal tumors are rare, their treatment remains a pervasive problem. This analysis sought to evaluate the safety and efficacy of CT-guided 125I seed brachytherapy for recurrent para-spinous and vertebral primary tumors.

Methods: From November 2002 to June 2014, 17 patients who met the inclusion criteria were retrospectively reviewed. 14 (82.4%) had previously undergone surgery, 15 (88.2%) had received conventional EBRT and 3 (17.6%) had chosen chemotherapy. The number of 125I seeds implanted ranged from 7 to 122 (median 79) with specific activity of 0.5-0.8 mCi (median 0.7 mCi). The post-plan showed that the actuarial D90 of 125I seeds were 90-183 Gy (median 137 Gy). The follow-up period ranged from 2 to 69 months (median 19 months). The local control rate was calculated by the Kaplan-Meier method.

Results: For 5 Chondrosarcomas, the 1-, 2-, 3-year local control rates were 75%, 37.5%, and 37.5%, respectively, with a median of 34 months (range, 4-39 months). For 4 chordomas, the local control rate was 50% with a median follow-up of 13 months (range, 3-17 months). For 3 fibromatosis, all of them were survival without local recurrence at the end of follow-up. During the follow-up period, 35.3% (6/17) died from metastases, 17.6% (3/17) developed local recurrence by 8, 14 and 34 months while 64.7% (11/17) remained alive. 100% experienced pain relief and normal or improved ambulation, without more than Frankel grade 3 radiation myelopathy.

Conclusions: Percutaneous 125I seed implantation can be an alternative or retreatment for recurrent spinal primary tumors.

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