

Image Article

Forearm Extravasation Injury in the Emergency Department

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Citation: Chou KY, Wu CC, Chor-Ming Lin A, Cheng YH (2017) Forearm Extravasation Injury in the Emergency Department. Emerg Med Inves 2017; J142. DOI: 10.29011/2475-5605.000042

Received Date: 27 March, 2017; **Accepted Date:** 7 April, 2017; **Published Date:** 14 April, 2017

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A 68 year-old male presented to the emergency department with a complaint of left forearm pain starting 3 hours ago. He denied a history of trauma. He had history of renal cell carcinoma, for which he had undergone surgery and chemotherapy. A contrast thoracoabdominal Computed Tomography (CT) scan to detect tumor recurrence or metastasis was performed 4 hours earlier. Physical examination revealed left forearm tenderness and swelling. Anteroposterior radiographs of the left forearm showed an accumulation of extravascular contrast in subcutaneous space (Figure 1 and 2). Approximately 100 ml of non-ionic low-osmolar iodinated contrast medium was injected using intravenously rapid infusion pump prior to CT scan. He complained of tenderness after the injection at the site. He was managed conservatively by elevation of the left upper limb above the level of heart, local ice packs, and analgesic treatment. The patient had an uneventful recovery and was discharged 6 hours later. Parenteral contrast medium extravasation during CT exam using an automatic power injector is a common complication in busy radiological departments. Clinical presentations of contrast extravasation vary from minor erythema, swelling and tenderness to skin necrosis with progressive edema, ulceration and compartment syndrome. Early identification and appropriate management are essential. As soon as the patient complains of pain or sensation of fullness at the puncture site, the injection needs to be interrupted. Clear instructions should be given to the patient to report any discomfort at the site of injection after enhanced CT exam. As the severity of extravasation injury may not be evident immediately, close observation for several hours is required.



Figure 1: Left forearm tenderness and swelling.

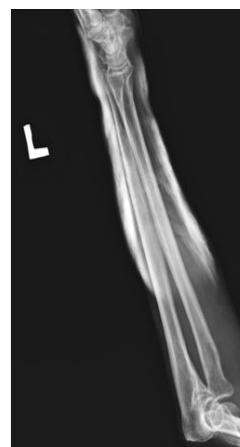


Figure 2: Left forearm showed an accumulation of extravascular contrast.

Keywords: Computed Tomography; Contrast; Emergency Department; Extravasation

Acknowledgments: We would like to express our special thanks to Shin Kong Wu Ho-Su Memorial Hospital staff.

Conflict of interest: None declared.

Funding support: None declared.

Authors' contributions: All authors passed four criteria for authorship contribution based on recommendations of the International Committee of Medical Journal Editors.