3

EVALUATION OF THE CLINICAL USEFULNESS OF ^{99m}Tc-HIgG SCINTIGRAPHY FOR THE ABDOMINAL INFLAMMATIONS

W. He, M. Jiang.

HuaDong Hospital, Shanghai, China

Purpose: This study was to evaluate the efficiency and safety of ^{99m}Tc-HIgG as the tracer for detection of focal inflammatory lesions in abdomen. Method: we have studied 57 in-patients (31 women and 26 men, mean age = 35±15, range = 20-49 yr) with 20 cases of pelvicellulitus, 30 cases of Inflammatory bowel diseases, 7 cases of abdominal abscess. All their diagnosis were based on clinical signs and various types of laboratory data and other imaging modalities. Scanning was performed at 1, 2, 4, 6 hr delays or 24 hr if necessary after intravenous administration of 740 MBq of ^{99m}Tc-HIgG. Results: ^{99m}Tc-HIgG was avidly taken up by acute pelvis inflammation lesions and performed less well in 2 chronic cases, so the positive rate was 90%. Of 30 cases IBD, 13 Crohn's disease, 17 ulcerative colitis, 12 patients with Crohn's disease at active stage were positive, 15 patients with ulcerative disease at active stage were positive, so the sensitivity was 92% and 88% respectively. There is no significant image in patients at relieve stage. Meanwhile they have good coincidence with the result of endoscopy and X-Rays. The sensitivity in 7 cases with pur in abdominal cavity was 100%. Conclusion: ^{99m}Tc-HIgG is proved to be effective in detecting focal site of inflammation in the abdomen. Provide clinically useful assessment of disease activity and response to therapy. Safe, convenient and no side effects. Physiological accumulation in some tissues such as the liver makes it difficult to localize.

4

Evaluation of Treatment Response in CVM Patients Using Quantitative Whole Body Blood Pool Scintigraphy

HJ Jang*, JM Park, JK Yoon, KH Lee, JY Choi, YS Do, BK Kim, BB Lee, Y Choi, YS Choe, SE Kim, BT Kim

Department of Nuclear Medicine, Radiology and Vascular Surgery, Samsung Medical Center, Sungkyunkwan University, Seoul, Korea

Purpose: Since the routine use of MRI or angiography to evaluate treatment response in congenital vascular malformation (CVM) is limited, we investigated the usefulness of quantitative whole body blood pool scintigraphy (WBBPS) for this purpose. **Methods:** 15 CVM lesions in 11 patients (M:F=5:6, age=2510) that underwent sclerotherapy were included. All patients underwent pre- and post-treatment WBBPS (760 MBq 99mTc-RBC) and MRI. Treatment response was "improved" or "not improved" according to follow up MRI results. Blood pool of lesion was quantified from WBBPS as %L/WB (%lesion to WB count) and an improvement index (%Imp) after treatment. **Results:** The location of CVM was the head (2), upper (4), or lower extremities (9). After treatment, the lesion was improved in 10 and was unimproved in 5 cases. %Imp from follow up WBBPS ranged from 87% to -14%. The amount of improvement was 50% for 3 lesions, 15~49% for 6 lesions, and <15% for 6 lesions. %Imp measured with WBBPS showed significant correlation to MRI results (rho=0.70, p<0.01). **Conclusion:** WBBPS allowed serial simple quantification of blood pool in CVM lesions, which correlated to MRI assessment of treatment response and may thus be useful for further treatment decisions.