عنوان مقاله:

Benefits of combined pharmacologic and submaximal exercise stress on Sub-diaphragmatic activity in myocardial perfusion scintigraphy

محل انتشار:

مجله پزشکی هسته ای ایران, دوره 26, شماره 2 (سال: 1397)

تعداد صفحات اصل مقاله: 7

نویسندگان:

Babak Fallahi - *Research Center for Nuclear Medicine, Tehran University of Medical Sciences, Tehran, Iran*

Davood Beiki - *Research Center for Nuclear Medicine, Tehran University of Medical Sciences, Tehran, Iran*

Yalda Salehi - *Department of Nuclear Medicine, Vali-Asr Hospital, Tehran University of Medical Sciences, Tehran, Iran*

Alireza Emami-Ardekani - *Research Center for Nuclear Medicine, Tehran University of Medical Sciences, Tehran, Iran*

خلاصه مقاله:

Introduction: Myocardial perfusion imaging (MPI) is an important imaging modality in managing patients with cardiovascular disease. MPI has a significant role in diagnosis and management of cardiovascular disease; however it is subjected to different artifacts. Combining pharmacologic stress with submaximal exercise reduces side effects, improves image quality, and enhances the detection of ischemia, compared with suboptimal exercise or vasodilator stress alone. Methods: 97 patients (62 males and 35 females) which were randomly allocated into two groups were studied using gated single-photon emission computed tomography (SPECT) imaging. The patients were randomly allocated into two different groups: dipyridamole or dipyridamole combined with submaximal exercise group. Subsequently, they were imaged at 15, 60, 120, and 180 minutes after radiotracer injection. Results:97 patients with an average age of 57.1 were compared 15, 60, 120 and 180 minutes after radiotracer injection. Comparing dipyridamole and dipyridamole submaximal exercise group a significant difference in target areas (myocardium, inferior and lateral wall) count ratio to both liver and colon count ratio was observed ($P < 0.05$) up to 120 min; However 180 minutes after the injection the difference between average count ratios of the myocardium to that of the visceral activity was only significant for the colon ($P < 0.05$). Conclusion: A protocol that combines submaximal exercise with dipyridamole stress is highly effective in improvingthe average count ratio of myocardial walls compared to visceral activity.

کلمات کلیدی:

Sub maximum exercise, Dipyridamole, Sub-diaphragmatic activity, Gated SPECT