عنوان مقاله:

Gallium citrate-۶۷ single-photon emission computed tomography/computed tomography for localizing the foci of classic fever and inflammation of unknown origin: A retrospective study of diagnostic yield

محل انتشار:

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خلاصه مقاله:

Objective(s): Only few studies have assessed the use of gallium citrate-۶۷ single-photon emission computed tomography/computed tomography (۶۷Ga-SPECT/CT) for localizing the foci of classic fever of unknown origin (FUO) and inflammation of unknown origin (IUO). Hence, the current study aimed to assess the diagnostic contribution of ۶۷Ga-SPECT/CT in a tertiary referral setting where nuclear imaging tests are performed after an unsuccessful comprehensive primary diagnostic workup.Methods: We retrospectively assessed the medical records of ۲۷ adult patients with FUO/IUO who had an unsuccessful diagnostic workup and who underwent ۶۷Ga-SPECT/CT for the localization of FUO/IUO foci in our university hospital between ۲۰۱۳ and ۲۰۱۹. The primary outcome was diagnostic yield. The secondary outcomes were overall clinical efficacy and spontaneous remission of FUO/IUO symptoms in patients with a negative ۶۷Ga-SPECT/CT finding.Results: Almost all patients completed the recommended diagnostic workup, except for urine culture and abdominal ultrasonography. Moreover, prior to ۶۷Ga-SPECT/CT, all patients underwent thoraco-abdominopelvic CT scan, which was a non-diagnostic procedure. After a median follow-up of ۸۴۳ days, the cause was identified in ۱۶ (۵۹%) patients. ۶۷Ga-SPECT/CT successfully localized the FUO/IUO foci in eight patients (diagnostic yield = ۳۰%; ۹۵% confidence interval [CI]: ۱۴%–۵۰%). However, the causes remained unknown during follow-up in ۱۱ (۴۱%) patients. Among them, five experienced spontaneous regression of symptoms. ۶۷Ga-SPECT/CT was negative in four of the five patients with spontaneous regression in symptoms without a definite cause. Considering this an important event, the overall clinical efficacy of ۶۷Ga-SPECT/CT increased to ۴۴% (۹۵% CI: ۲۵%–۶۵%).Conclusion: ۶۷Ga-SPECT/CT had an acceptable diagnostic yield for the localization of FUO/IUO foci, which are challenging to diagnose, in a contemporary tertiary referral care setting. In patients who experienced spontaneous regression in symptoms with an unexplained cause, the absence of abnormal uptake might indicate prospective spontaneous remission. Thus, ۶۷Ga-SPECT/CT could be an active first-line nuclear imaging modality in settings

where fluorine-۱۸-fluorodeoxy glucose positron emission tomography and computed tomography is not available for .the assessment of FUO/IUO causes

کلمات کلیدی:

Diagnostic yield, ۶۷Ga-SPECT/CT, fever of unknown origin, inflammation of unknown origin, spontaneous remission