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A. KIŠKO¹, M. BABČÁK¹, F. NEMÉTH¹, M. VEREB²¹J.A. Reiman Faculty Hospital with Polyclinic, Faculty of Health Care, Prešov University; ²Sekčov Polyclinic, Nuclear Medicine, Prešov, Slovak republic**PROGNOSTIC VALUE OF MYOCARDIAL SCINTIGRAPHY IN NON-STENOTIC CORONARY LESION**

Prognostic value of gated SPECT MPI in unselected group of 170 pts with non-stenotic coronary lesion (NSCL) was evaluated. In multivariate analysis only an abnormal MPI remained to be an independent predictor of ischemia regardless of size or severity of perfusion abnormalities ($P < 0,005$). We highly recommend gated SPECT MPI to be performed in all cases of NSCL to avoid life-threatening coronary complications in forthcoming future.

Key words: non-stenotic coronary lesion, myocardial perfusion imaging, ischemia

Background. Coronary angiography has diagnostic limitation in identifying non-stenotic coronary lesion (NSCL) responsible for ischemia. Myocardial perfusion defects in patients (pts) with NSCL have often been unreasonably considered by invasive cardiologists as being "false positive" [3]. We evaluated a prognostic value of gated SPECT MPI in unselected group of the pts with NSCL over a 24 month period of follow-up.

Material and methods. 170 pts (115 males, 67.6 %; age 42-68 years; mean age 56.4 ± 9.2 years) with NSCL (stenosis of 50% or less of LAD and 70% or less of any other coronary artery or its major branches) and fractional flow reserve (FFR) cut off ≥ 0.80 on coronary angiography were enrolled into the study.

Study design. Study group (A): 86 pts with NSCL and subsequent positive MPS performed within 6 months from the time of coronary angiography

- Control group (B): 84 pts with NSCL and normal scan results
- Follow-up period: 24 months from the time of MPI or up to the time of major coronary event (MCE)

Retrospective analysis of 86 pts with NSCL and subsequent positive MPS performed within 6 months from the time of coronary angiography (study group) and 84 pts with normal scan results (control group) was performed. Follow-up period was for 24 months from the time of MPI or up to the time of major coronary event (MCE) – first occurrence of cardiac death or myocardial infarction.

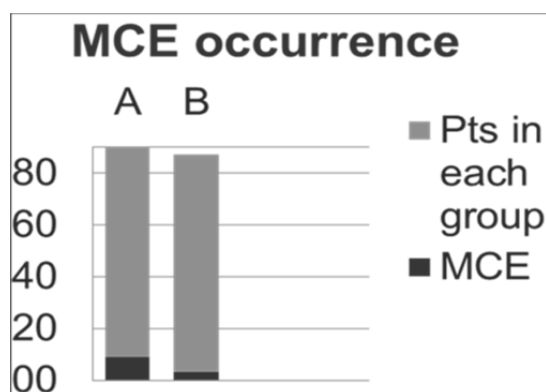
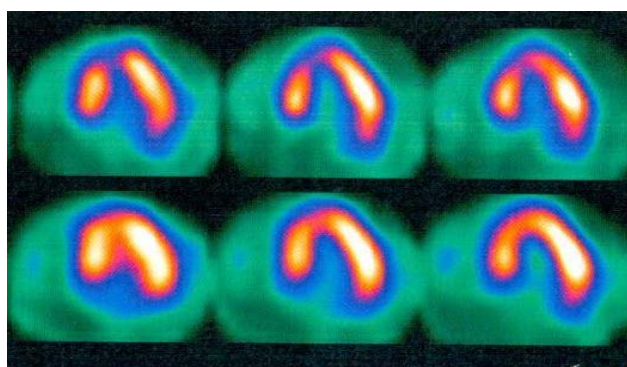
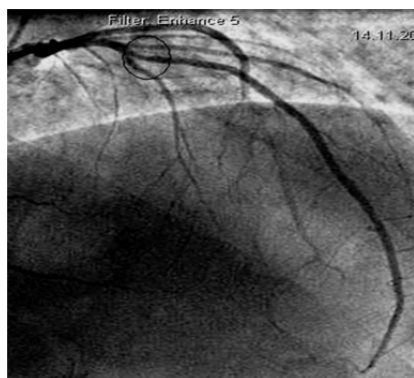


Fig. 1. Comparison of major coronary events (MCE) occurrence in study (A) group against control (B) group.



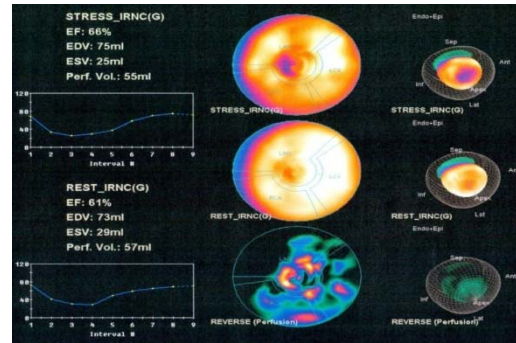
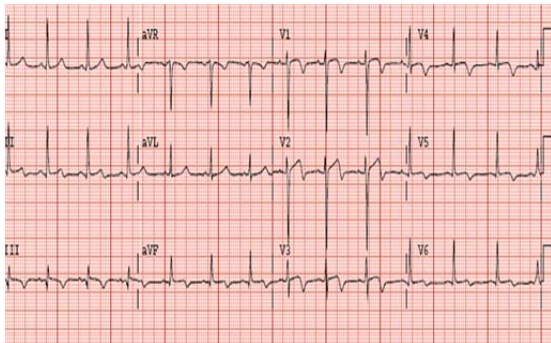


Fig. 2. Clinical case 1: 58 y.o. male, NSCL of LAD, FFR-0.82 and apical perfusion defect on stress-rest SPECT, NSTEMI after 6 months from MPI.

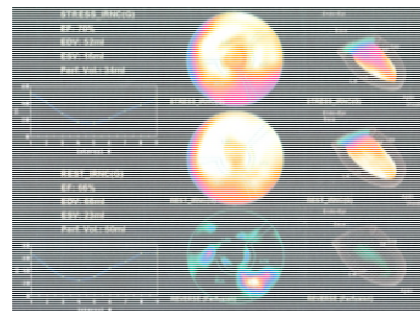
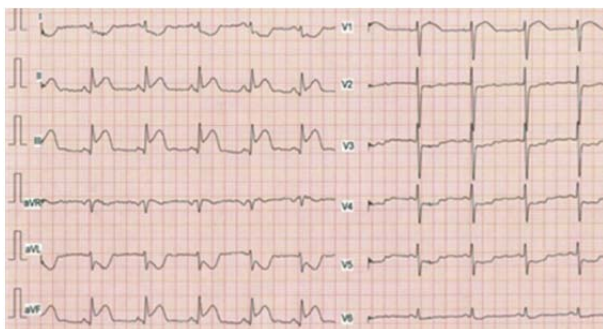
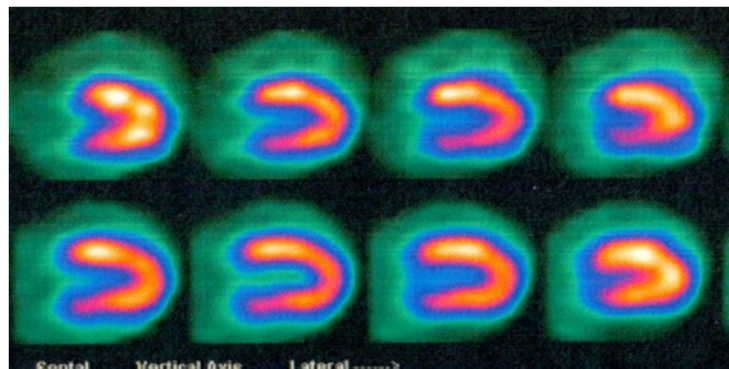


Figure 3. Clinical case 2: 67 y.o female, NSCL of RCA, FFR-0,80 and inferior perfusion defect on stress-rest SPECT, survived STEMI in 14 months after MPI

Conclusion. Pts with NSCL on coronary angiography and myocardial perfusion defects have relatively high event rate (11%) of MCE over a period of 24 months from the time of MPI. Myocardial perfusion defect is a valuable prognostic predictor of coronary ischemia in patients with angiographically insignifi-

cant coronary artery disease [1] and MPI can also prevent unnecessary coronary invasive diagnostic procedures and interventions [2]. So, we highly recommend gated SPECT MPI to be performed in cases of NSCL to avoid life-threatening coronary complications in forthcoming future.

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ПРОГНОСТИЧНЕ ЗНАЧЕННЯ СЦИНТИГРАФІЇ МІОКАРДА ПРИ ГРАНИЧНОМУ КОРОНАРНОМУ
УРАЖЕННІ

Досліджено роль перфузійної сцинтиграфії міокарда (ПСМ) для виявлення ішемії та її прогностичне значення в 170 хворих з граничним (нестенозуючим) коронарним ураженням (ГКУ). При багатofакторному аналізі наявність дефекту перфузії при ПСМ було незалежним предиктором ішемії незалежно від його розміру ($p < 0,005$). Ми наполягаємо на проведенні ПСМ у всіх випадках ГКУ, виявленого під час коронарографії, щоб уникнути небезпечних для життя коронарних ускладнень у майбутньому.

Ключові слова: граничне коронарне ураження, перфузійна сцинтиграфія міокарда, ішемія

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