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## 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  $56.4\pm9.2$  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  $\geq 0.80$  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.

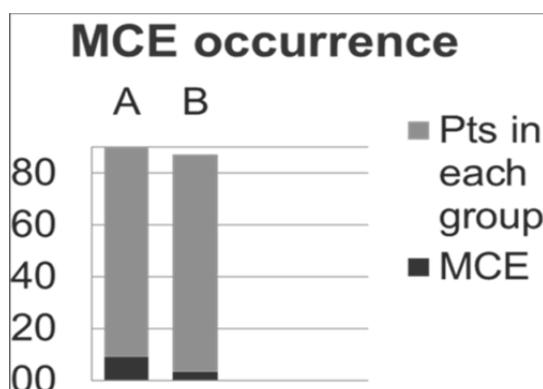
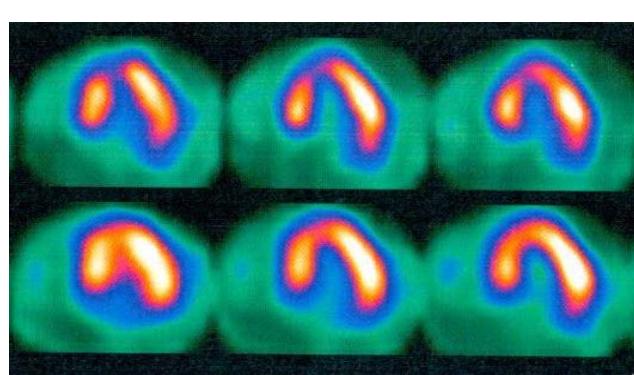
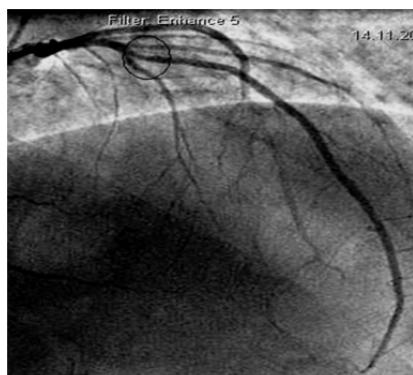


Fig. 1. Comparison of major coronary events (MCE) occurrence in study (A) group against control (B) group.



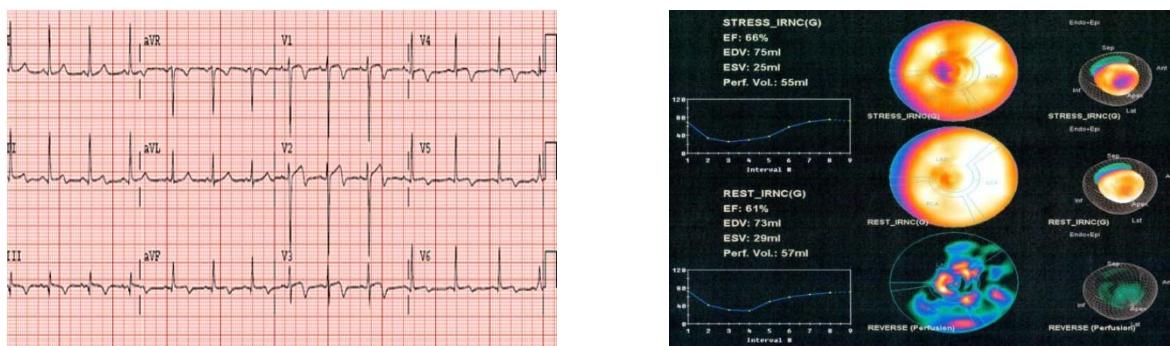


Fig. 2. Clinical case 1: 58 y.o. male, NSCL of LAD, FFR-0.82 and apical perfusion defect on stress-rest SPECT, NSTEMI after 6 months from MPI.

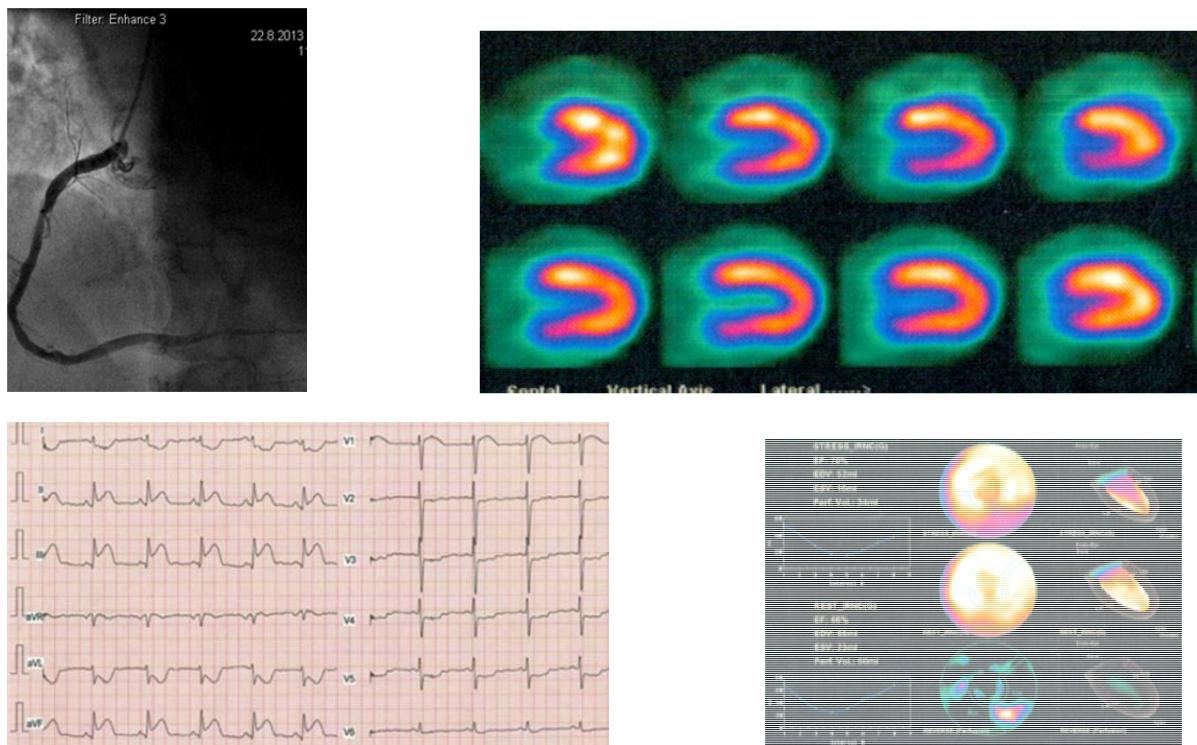


Figure 3. Clinical case 2: 67 y.o female, NSCL of RCA, FFR-0,80 and inferior perfusion defect on stress-rest SPECT, survived STEMI in 14 months after MPI

**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 (PCM) для виявлення ішемії та її прогностичне значення в 170 хворих з граничним (нестеноозуючим) коронарним ураженням (ГКУ). При багатофакторному аналізі наявність дефекту перфузії при PCM було незалежним предиктором ішемії незалежно від його розміру ( $p<0,005$ ). Ми наполягаємо на проведенні PCM 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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