# Bloc de branche gauche avec FEVG ≥ 40%

# Comparaison de la valeur pronostique de la scintigraphie myocardique sur 3ans chez les patients présentant une perfusion normale Vs anomalies perfusionnelles fixes.

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- Le bloc de branche gauche (BBG) est un facteur prédictif de maladie cardiovasculaire et de mort subite(1).

1. *Asymptomatic Left Bundle Branch Block Predicts New-Onset Congestive Heart Failure and Death From Cardiovascular Diseases. Peyman N.*

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# Asymptomatic Left Bundle Branch Block Predicts New-Onset Congestive Heart Failure and Death From Cardiovascular Diseases

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## Abstract

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### Background

Left bundle branch block (LBBB) has been proposed as a risk factor for cardiovascular morbidity and mortality. We sought to characterize the strength of these associations in a population without preexisting clinical heart disease.

### Methods

The association between LBBB and new-onset congestive heart failure (CHF) or death from cardiovascular diseases was examined in 1,688 participants enrolled in the SPPARCS study who were free of known CHF or previous myocardial infarction. SPPARCS is a community-based cohort study of residents of Sonoma, California that are > 55 years. Medical history and 12-lead ECGs were obtained every 2 years for up to 6 years of follow-up. LBBB at enrollment or year 2 was considered "baseline" and assessed as a predictor of CHF and cardiovascular death ascertained at years 4 and 6.

- Des études antérieures avaient tenté d'évaluer la valeur pronostique de la scintigraphie myocardique chez des patients présentant un BBG (2,3).


2. *Prognostic value of myocardial perfusion imaging with exercise and/or dipyridamole hyperemia in patients with preexisting left bundle branch block. Nigam A1.*
3. *Prognosis in patients with left bundle branch block and normal dipyridamole thallium-201 scintigraphy. Gil VM1.*

## Prognosis in patients with left bundle branch block and normal dipyridamole thallium-201 scintigraphy.

Gil VM[1], Almeida M, Ventosa A, Ferreira J, Aguiar C, Calqueiro J, Seabra-Gomes R.

Author information

**Abstract**

**BACKGROUND:** The presence of complete left bundle branch block (LBBB) is commonly associated with a poorer prognosis, especially in patients with coronary artery disease (CAD). In the general population with suspected CAD and normal intraventricular conduction, a normal dipyridamole-thallium scintigraphy is a strong marker of a favorable outcome.

**OBJECTIVE:** Our objective was to assess the prognosis in patients with LBBB and a normal dipyridamole thallium-201 scintigram.

**POPULATION AND METHODS:** Patients with complete LBBB and normal myocardial perfusion on dipyridamole SPECT thallium-201 scintigraphy performed in our center for suspected CAD between 1988 and 1995 were monitored for clinical events.

**RESULTS:** Sixty-nine patients (36 women and 33 men) with a mean age of 59 years (range 56 to 61) were monitored for a mean period of 33 months (range 25 to 35). During this period, 4 patients had unstable angina, 2 of whom underwent myocardial revascularization. There were no deaths or myocardial infarction. All events occurred at least 2 years after the thallium-201 scintigraphy.

**CONCLUSION:** The presence of a normal myocardial perfusion with dipyridamole thallium-201 scintigraphy in this group of patients with suspected CAD and LBBB was associated with a very good prognosis, a low rate of clinical events occurring only 2 years after the myocardial scintigraphy, and no hard events.

## Prognostic value of myocardial perfusion imaging with exercise and/or dipyridamole hyperemia in patients with preexisting left bundle branch block.

Nigam A[1], Humen DP.

Author information

**Abstract**

The detection of myocardial ischemia in patients with preexisting left bundle branch block (LBBB) remains problematic. Pharmacologic hyperemia with dipyridamole is now used routinely in such patients for detection of significant coronary artery disease. Little data exists on the prognostic value of cardiac nuclear scintigraphy in patients with preexisting LBBB. The purpose of our study was to determine the prognostic value of cardiac nuclear scintigraphy in patients with preexisting LBBB.

**METHODS:** Ninety-six patients with preexisting LBBB underwent perfusion imaging between July 1987 and June 1995. Thirty-seven underwent planar 201Tl imaging, and 59 underwent SPECT sestamibi imaging. Images were interpreted by consensus of two experienced observers and classified as normal, abnormal low risk and abnormal high risk. Outcomes measured were survival, cardiac and noncardiac death. The final study group included 43 women and 53 men, aged 42-83 (mean 66 +/- 9). Average follow-up was 3.4 +/- 2.1 yr.

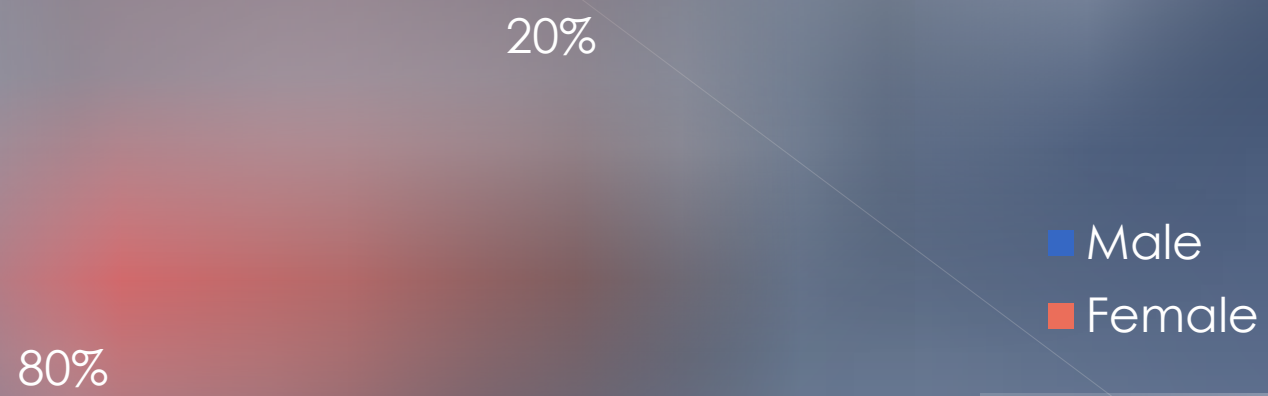
**RESULTS:** Of the 96 patients examined, 31 had normal scans, 39 had low-risk scans and 26 had high-risk scans. At the end of the study period, 27 patients with normal scans were still alive while 2 suffered cardiac death and 2 suffered noncardiac death. Of those with low-risk scans, 36 survived while 2 suffered cardiac death and 1 suffered noncardiac death. Finally, of those with high-risk scans, 17 survived while 8 suffered cardiac death and 1 suffered noncardiac death (chi-square test, p = 0.020).

**CONCLUSION:** Dipyridamole imaging is an important prognostic tool for predicting future cardiac events in patients with preexisting LBBB and aids in their risk stratification for coronary artery disease.

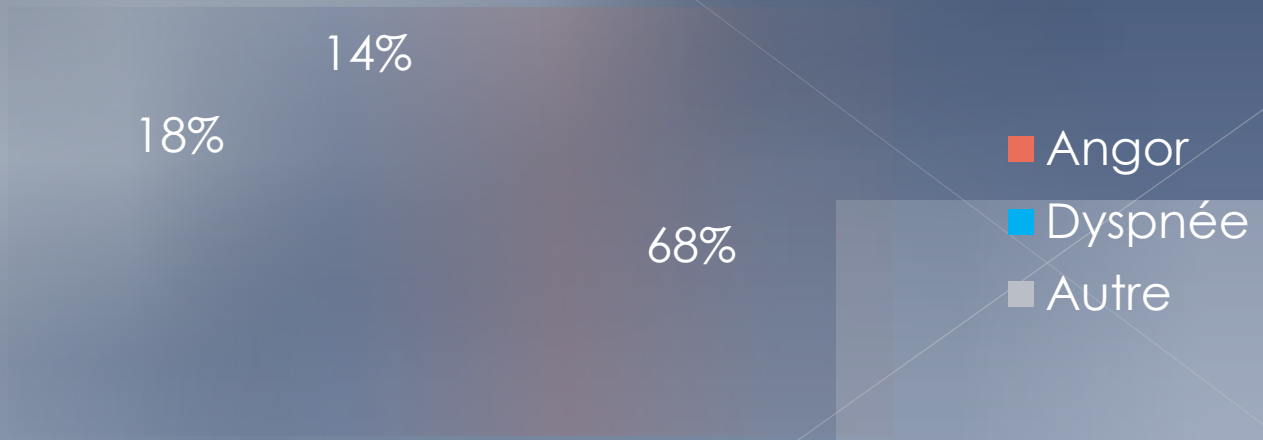
- Le but de cette étude est de déterminer si la Scinti avec anomalies perfusionnelles fixes a la même valeur pronostique qu'une perfusion normale, chez les patients ayant une fraction d'éjection ventriculaire gauche (FEVG) supérieure ou égale à 40%.

- **190** patients ayant un BBG, ont bénéficié d'une Scinti dans notre service entre janvier et décembre 2016 (Gated SPECT sestamibi Stress / Rest).
- **151** patients avaient une perfusion **normale** ou des anomalies **fixes**.
- Les patients qui n'étaient pas joignables 3 ans plus tard (avril 2019) ou ceux dont la FEVG était inférieure à **40%** ont été exclus.
- Les résultats mesurés étaient un événement cardiovasculaire majeur ou le décès.

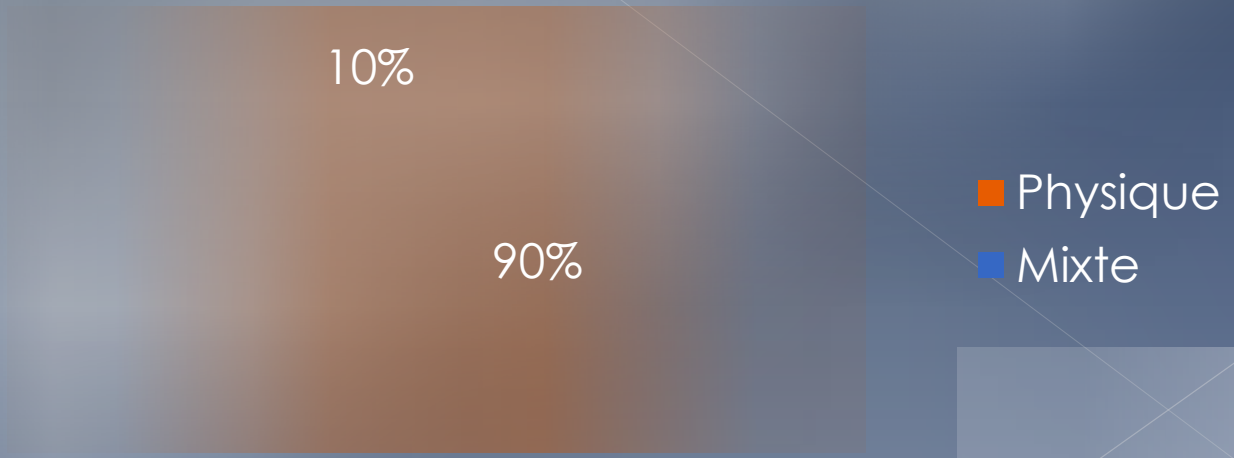
- Le groupe d'étude final comprenait 51 patients (41 femmes et 10 hommes) âgés de 34 à 86 ans (moyenne de 64 ± 10 ans).



- Le suivi moyen était de 33.6 mois.
- 38 patients souffraient d'hypertension, et 19 étaient diabétiques.
- 35 patients étaient orientés pour l'exploration d'un angor et 9 pour une dyspnée.

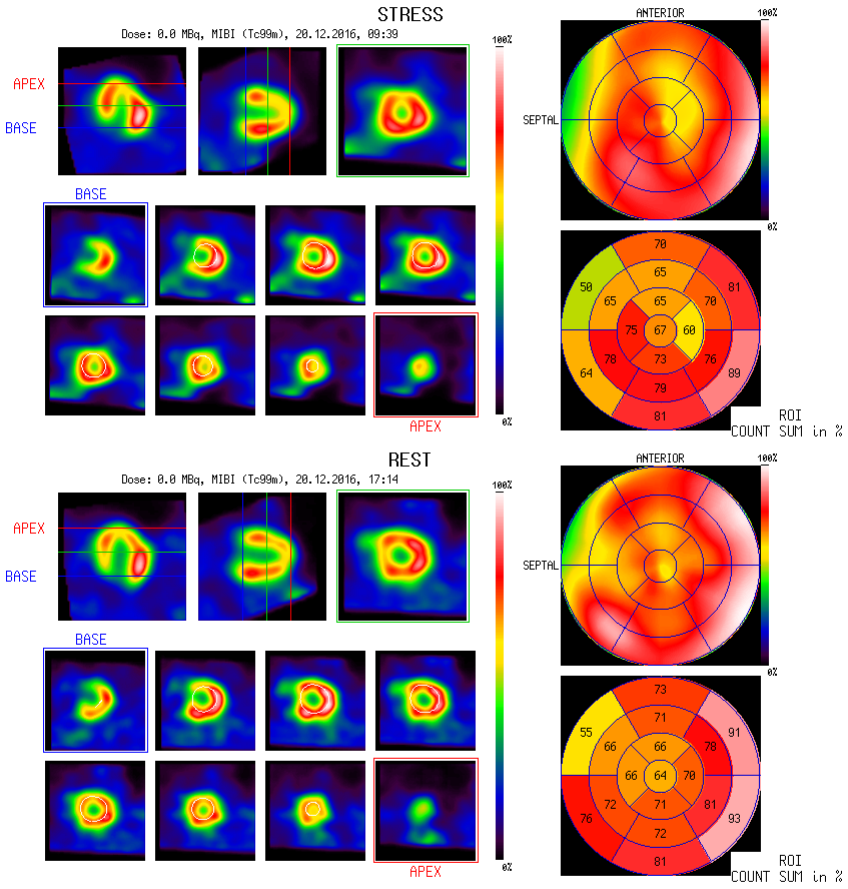


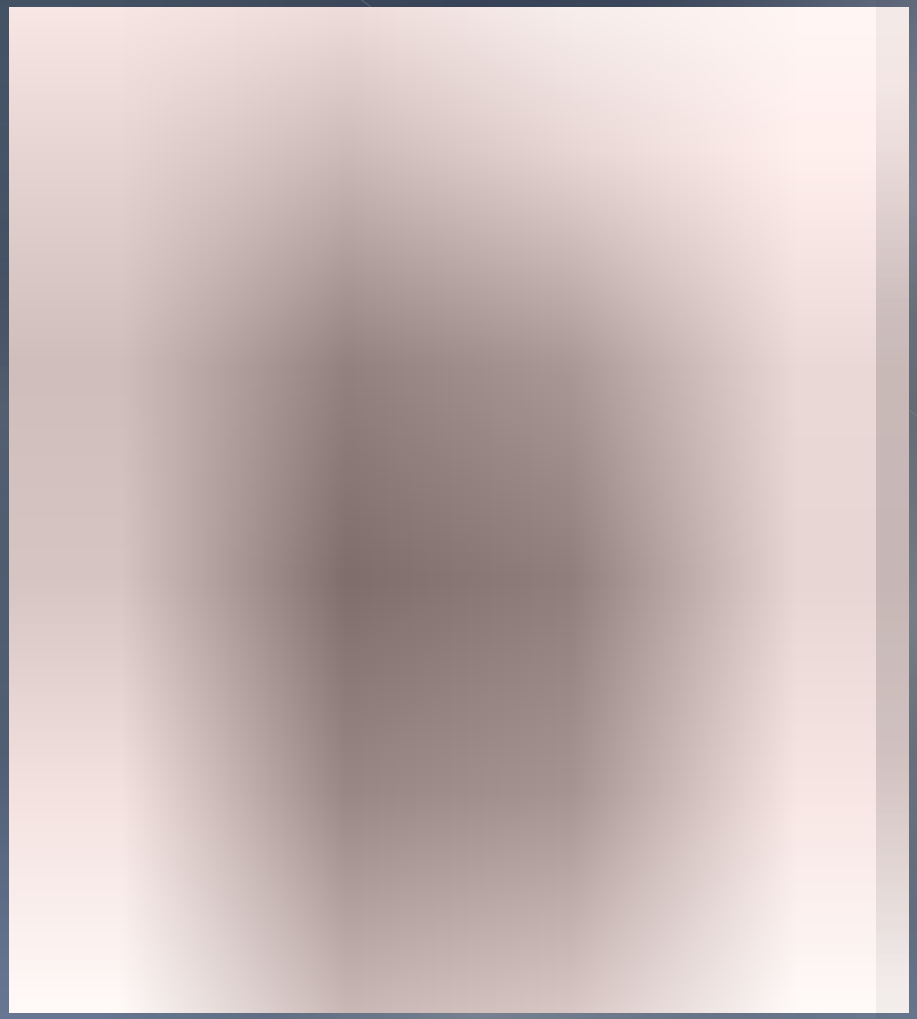
- Un stress physique a été réalisé chez 46 patients et 5 avaient un stress mixte.
- 5 patients avaient un stress cliniquement positif

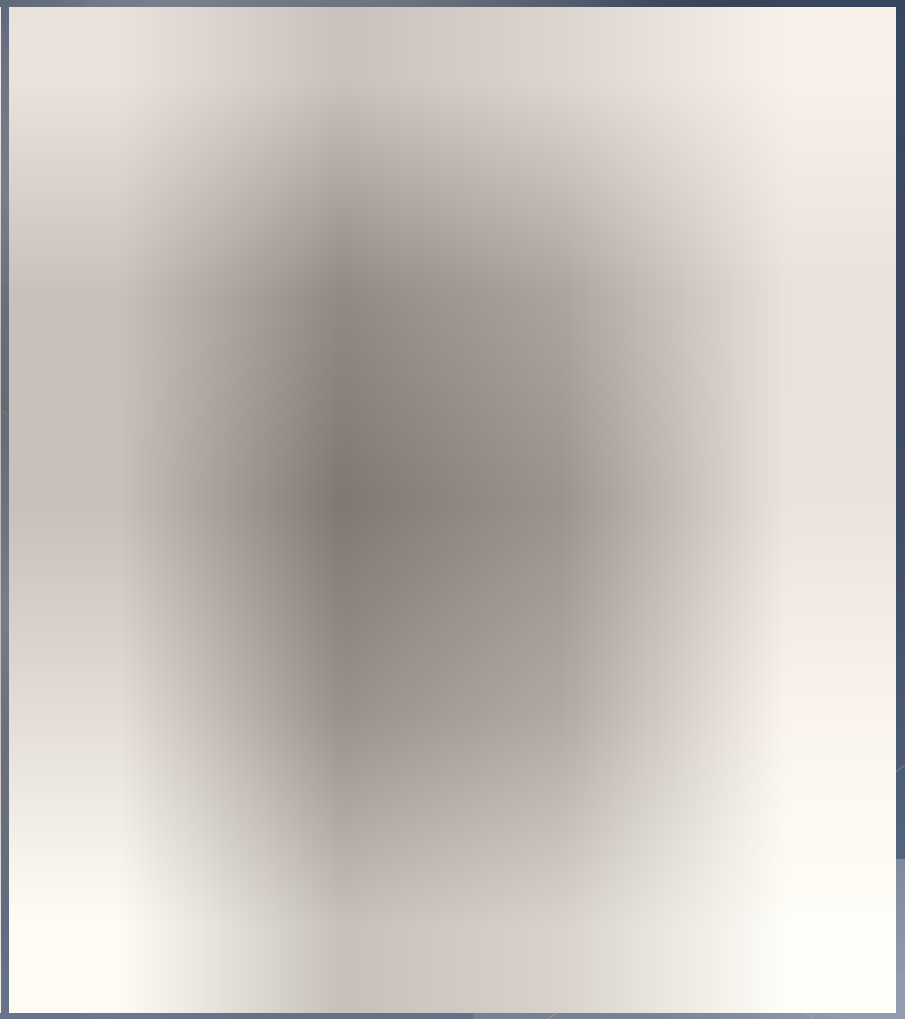


- Sur les 51 patients examinés:
  - **20** avaient une perfusion **normale**
  - 31 avaient des anomalies perfusionnelles fixes :
    - **7** d'étendu discret (1/17segments).
    - **5** d'étendu modéré(2/17segments).
    - **20** d'étendu large. (**3/17segments**).




STRESS
Dose: 0.0 MBq, MIBI (Tc99m), 20.12.2016, 09:39
APEX
BASE
BASE
APEX
100%
0%
ANTERIOR
SEPTAL
70
65
50
65
65
81
70
75
67
60
78
73
76
64
89
79
81
ROI
COUNT SUM in %
REST
Dose: 0.0 MBq, MIBI (Tc99m), 20.12.2016, 17:14
APEX
BASE
BASE
APEX
73
71
55
66
66
91
78
66
64
70
72
71
81
76
93
72
81





- 3 ans après le premier examen, il n'ya eu qu'un seul décès, mais d'origine non cardiaque (leucémie).

| | Mort cardiaque | Survivant | Total |
|---|---|---|---|
| Perfusion normale | **0** | **20** | 20 |
| Anomalies perf. Fixes | **0** | **31** | 31 |
| Total | 0 | 51 | 51 |

- Risque relatif à 0.65, mais avec un *p*=0.83 (non significatif).

- Il y avait également un événement cardiaque, mais sans complications et sans nécessité de revascularisation, dans le groupe des anomalies fixes.

| | Evénement cardiaque | Sans événement cardiaque | Total |
|---|---|---|---|
| Perfusion normale | **0** | **20** | 20 |
| Anomalies perf. Fixes | **1** | **30** | 31 |
| Total | 1 | 50 | 51 |

- Risque relatif à 1.96, mais avec un *p*=0.67 (non significatif).

| | Mort cardiaque | Survivant | Total |
|---|---|---|---|
| Perfusion normale | 0 | 20 | 20 |
| Anomalies perf. Fixes | 0 | | |
| Total | 0 | 51 | 51 |

**FEVG ≥ 40%**

**Prognostic value of myoca**
**in patients with preexistin**

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Author information

study period, 27 patients with normal scans were still alive while 2 suffered cardiac death and 2 suffered noncardiac death. Of those

- L'absence de décès de cause cardiaque, après 03 ans de suivi, constitue un élément de bon pronostic que ce soit pour une perfusion normale ou des anomalies fixes.
- Ceci est conditionné par une FEVG>40%.

- Une perfusion normale ou des anomalies fixes observées en Scinti chez les patients atteints de BBG avec une FEVG ≥ à 40%, sont à considérer comme de bon pronostic et ont la même valeur pronostique sur 3 ans.
- Une autre évaluation est en cours pour les patients de moins de 40% de FEVG, ainsi que ceux avec des anomalies réversibles.

# Merci de votre attention