



Centre
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Interprétation de la scintigraphie pulmonaire de ventilation/perfusion dans l'embolie pulmonaire

Des critères PIOPED aux critères EANM

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- Définitions
- Critères PIOPED
- Critères EANM
- Diagnostics différentiels
- Pièges

Références

- ◆ Parker JA, Coleman RE, Grady E, et al (2012) SNM Practice Guideline for Lung Scintigraphy 4 . 0 *. J Nucl Med Technol 40:57–65.
- ◆ 2. Bajc M, Neilly JB, Miniati M, et al (2009) EANM guidelines for ventilation/perfusion scintigraphy : Part 1. Pulmonary imaging with ventilation/perfusion single photon emission tomography. Eur J Nucl Med Mol Imaging 36:1356–1370.

Mismatch

- Défect perfusion, ventilation normale
- Etiologies : EP, radiothérapie, anomalie congénitale vasculaire pulmonaire, artérites, cancer, adénopathies médiastinales, anévrisme aortique, maladie veino-occlusive

- Matched defect :
V et P anormales

- Reversed mismatch :
defect V > defect P

Ventilation

Perfusion

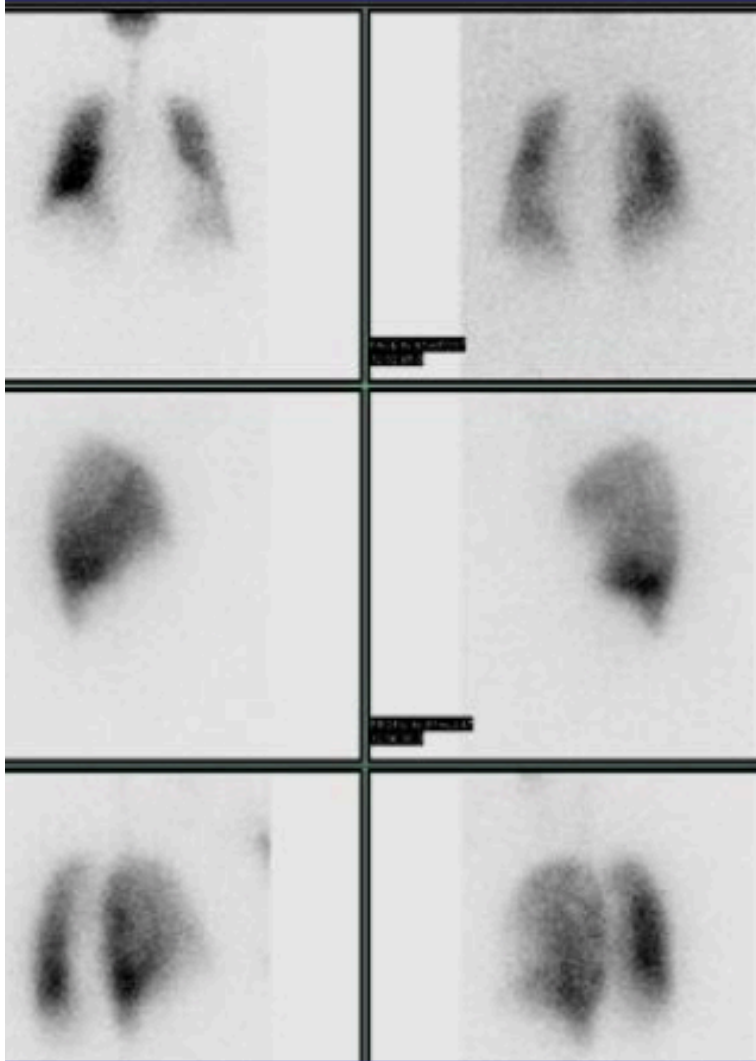


- Gestalt
- Interprétation holistique

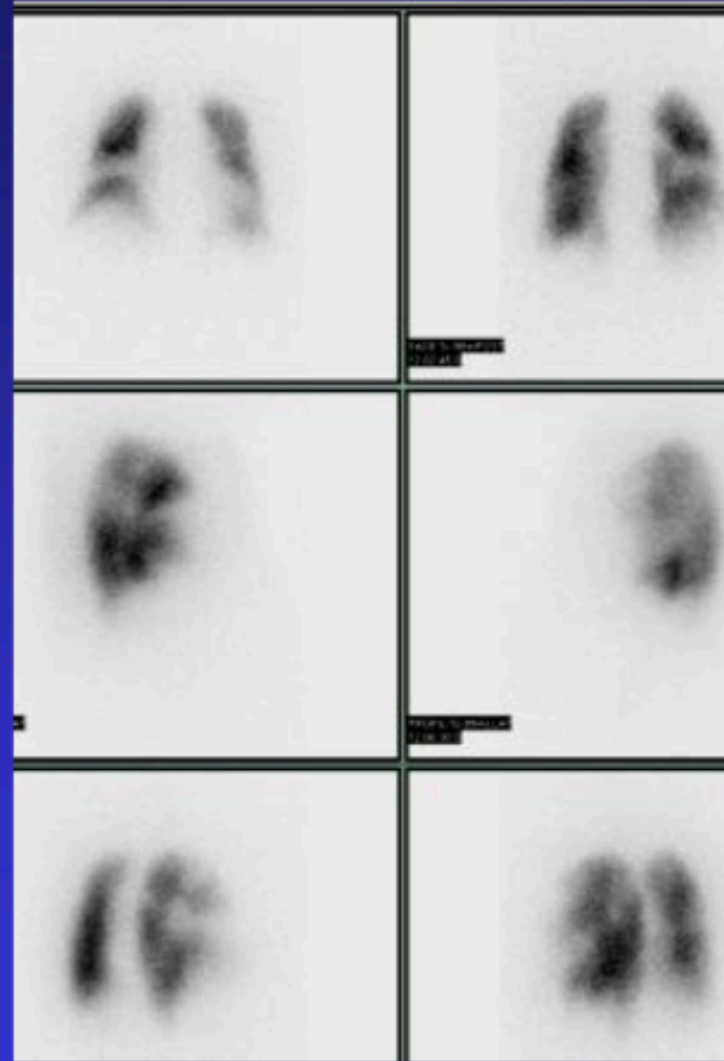
Critères PIOPED

PIOPED	Modified PIOPED II	Perfusion-only modified PIOPED II	Perfusion-only PISAPED
High LR >2 large mismatched (V:Q) segmental defects*	High LR ≥2 large mismatched (V:Q) segmental defects*	PE present ≥2 large mismatched (Q:CXR) segmental defects*	PE present ≥1 wedge-shaped Q defects
Borderline high LR 2 large mismatched (V:Q) segmental defects*			
Intermediate LR 2 moderate or 1 large mismatched (V:Q) defect* Difficult to categorize as high or low	Nondiagnostic All other findings	Nondiagnostic All other findings	Nondiagnostic Cannot classify as PE-present or PE-absent
Borderline low LR 1 matched (V:Q) defect, CXR-negative			
Low LR Nonsegmental perfusion defects† Q defect substantially < CXR defect Matched (V:Q) defects, CXR-negative Any number of small Q defects*			
Normal No Q defects	Very low LR Nonsegmental† Q defect < CXR lesion 1-3 small segmental* defects Solitary matched (V:Q:CXR) defect (≤1 segment) in mid or upper lung Stripe sign‡ Solitary large pleural effusion§ ≥2 matched (V:Q) defects, regionally normal CXR Normal No Q defects	PE absent Very low probability Nonsegmental† Q defect < CXR lesion 1-3 small segmental* defects Solitary matched (Q:CXR) defect (≤1 segment) in mid or upper lung Stripe sign‡ Solitary large pleural effusion§	PE absent Non-wedge-shaped Q defect Contour defect caused by enlarged heart, mediastinum, or diaphragm Near-normal Q Normal Q

Ventilation



Perfusion



Problèmes

- Résultats = probabilité haute, intermédiaire, basse... Sans probabilité pré-test.
- Basé sur techniques obsolètes.
- Souvent non diagnostique

Critères EANM

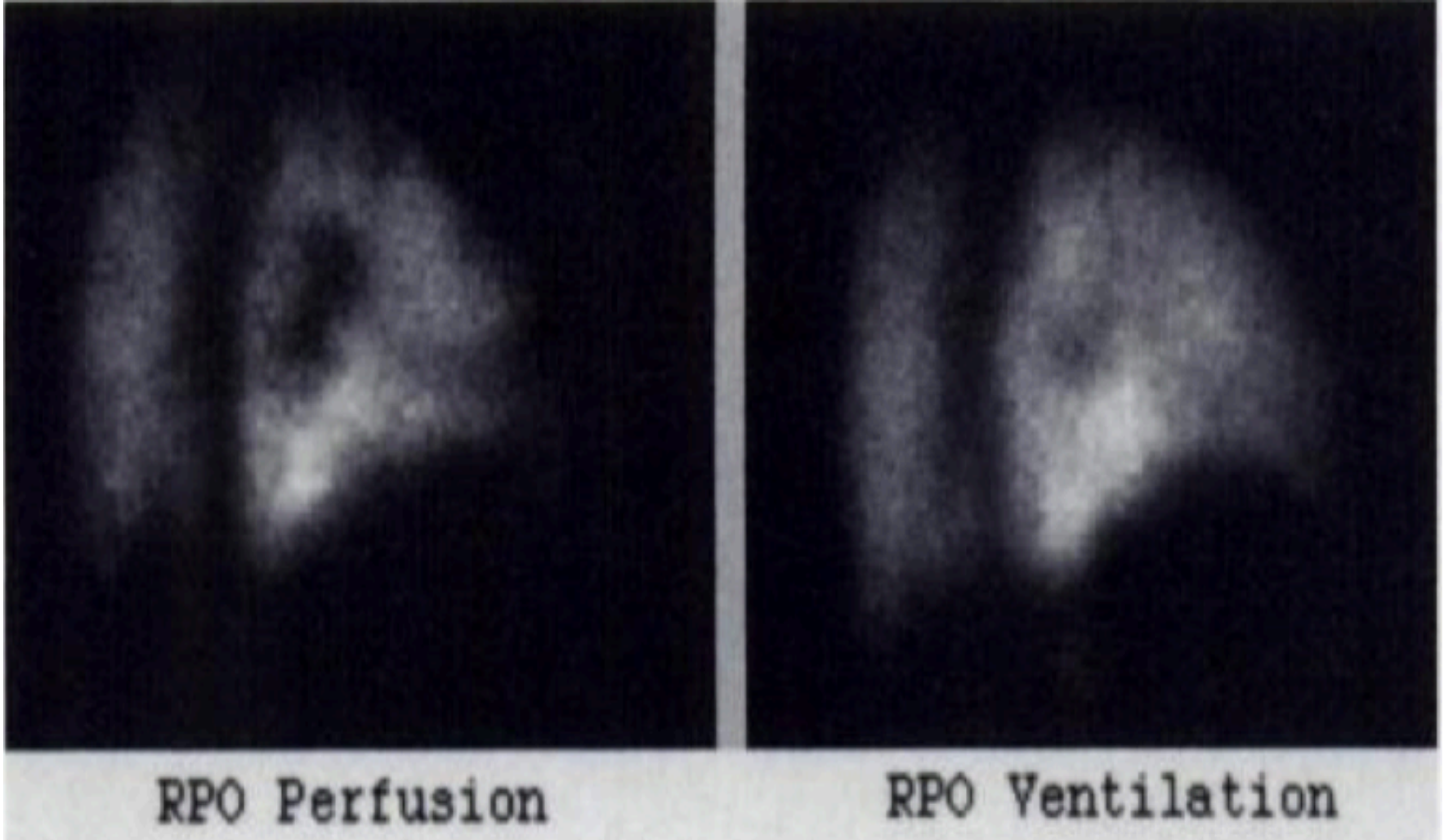
- **EP si 1 segment ou 2 sous-segments conforme à l'anatomie vasculaire**
- Pas d'EP si :
 - Perfusion normale
 - Matched V/P ou reversed mismatch
 - Mismatch non conforme
- Non diagnostique

Critères EANM (SPECT)

- VPN 97-99%
- Sensibilité 96-99%
- Spécificité 91-98%
- Non diagnostique 1-3%

Diagnostics différentiels

- BPCO : matched voire reversed mismatch
- IVG : mismatch postérieurs
- Pneumopathie :
 - Matched voire reversed mismatch
 - Stripe sign



Stripe sign

Pièges

- Points chauds liés aux macroagrégats
- Sous-estimation anomalies en planaire
- Aerosols liquides et BPCO
- Anomalies non segmentaires
- Hypoperfusion ensemble d'un poumon

Pièges

- EP avec occlusion partielle

Merci de votre attention