

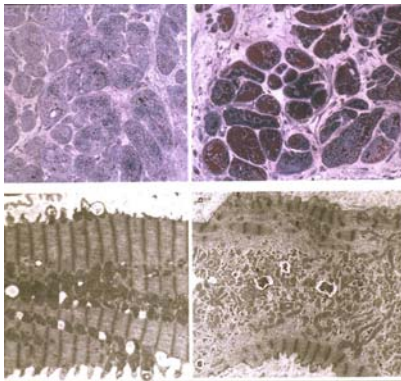
Bedømmelse av viabilitet

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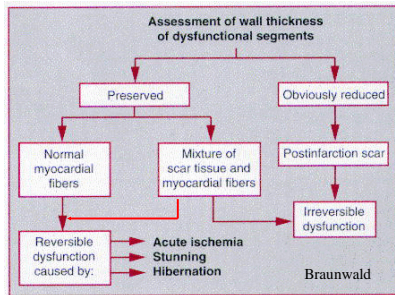
<http://folk.ntnu.no/stoylen/lectures/#student>

Hva er viabilitet?

- Stunning
- Hibernering
- Nekrose
- Fibrose



Reversibel vs. irreversibel dysfunksjon:



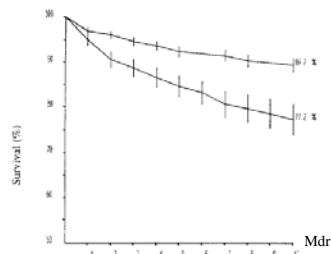
Depending on ratio of scar vs. myocardial tissue

Hvorfor bedømme viabilitet?

- Prognostisk etter infarkt
- Potensiale for bedret funksjon (svikt)
- Effekt av revaskularisering

Betydning av viabilitet etter infarkt:

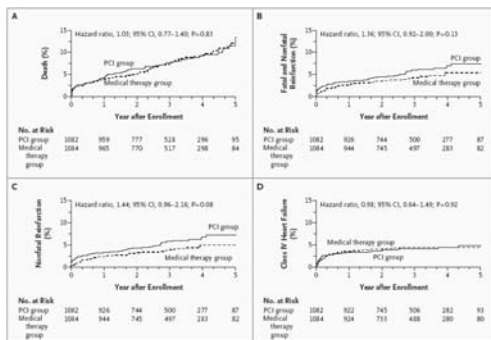
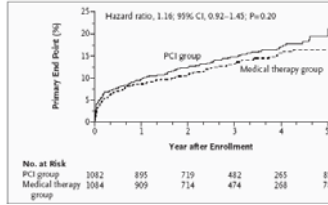
- 773 pasienter etter infarkt
- Dobutamin ekko
- Viabilitet sterkere prognostisk prediktor enn ischemi



Sicari 1997

OAT - studien

- 2166 pasienter med okkludert IRA 3 – 28 dager etter AMI
- Høy risiko: EF<50% eller proximal okklusjon
- 1082 PCI med stent og optimal med. terapi, 1084 kun optimal med. terapi.
- Endepunkt død, nytt MI, NYHA grad IV.
- Ingen forskjell i endepkt.



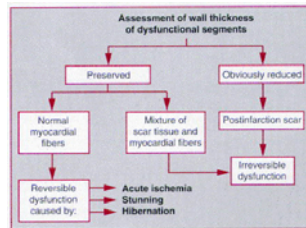
Subgroup	No. of Patients (%)	Hazard Ratio	4-Yr Cumulative Event Rate	P Value
			PCI group vs Medical therapy group	
Overall	2166 (100)	1.16	17.2 vs 15.6	
Age				0.05
<65 yr	1534 (71)	1.0	17.0 vs 13.2	
≥65 yr	632 (29)	1.78	17.8 vs 21.3	
Sex				0.13
Male	1090 (50)	1.0	16.8 vs 13.5	
Female	476 (22)	1.83	18.3 vs 22.9	
Race or ethnic group				0.52
Nonwhite	428 (20)	1.0	18.8 vs 17.3	
White	1738 (80)	1.0	16.7 vs 15.0	
From MI to randomization				0.81
≤7 days	963 (44)	1.0	18.9 vs 18.6	
>7 days	1203 (56)	1.0	15.9 vs 12.9	
Infect-related artery				0.38
LAD	781 (36)	1.0	20.1 vs 16.2	
Other	1385 (64)	1.0	15.6 vs 15.3	
Ejection fraction				0.48
<50%	1151 (54)	1.0	22.6 vs 20.4	
≥50%	999 (46)	1.0	10.7 vs 11.1	
Diabetes				0.41
Yes	446 (21)	1.0	29.3 vs 23.3	
No	1720 (79)	1.0	14.4 vs 13.5	
Killip class				0.39
I	1740 (81)	1.0	15.2 vs 13.1	
II-IV	413 (19)	1.0	25.3 vs 26.9	

Hvordan bestemme viabilitet:

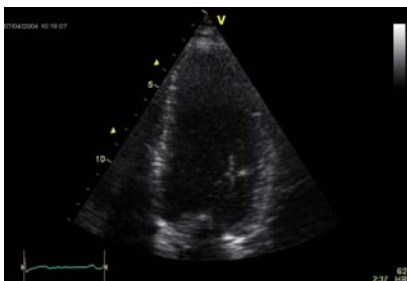
- Nukleærmedisinske metoder
 - SPECT
 - PET
- Ekkokardiografi
 - Hvile
 - Dobutamin
- MR med kontrast
- Fasit: Funksjonsgjenvinning etter revaskularisering

Nukleærmedisin:

- PET: "gullstandard" for metabolsk integritet. – Lite tilgjengelig.
- SPECT: Sensitivitet > 90%, spesifisitet ca 50%!
 - Alt for sensitiv for tilstedeværelse av viable myocytter i akinetisk arvev.



Ekkokardiografi



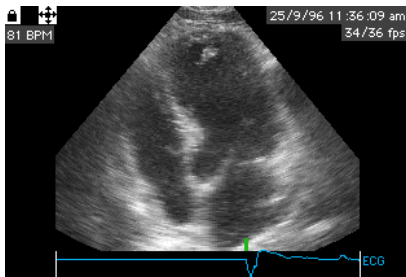
Kontraktilitet = viabilitet

Unntak: Akutt fasen i infarkt

- Iskemisk stunning
- Ødem
- Recovery innen 1 uke



Ekkokardiografi:

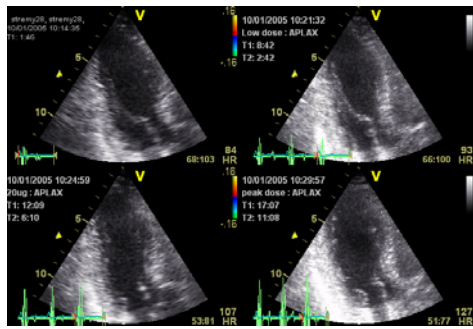


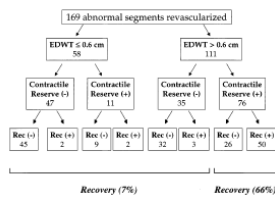
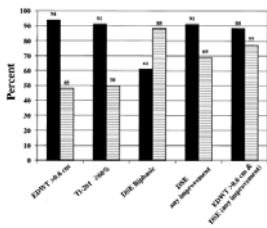
Tynn vegg: ikke viabelt

Ekkokardiografi:

- Problem:
 - Akinesi / dyskinesi med bevart veggtykkelse (> 0,5 mm)
- Løsning:
 - Lavdose dobutamin stressekko

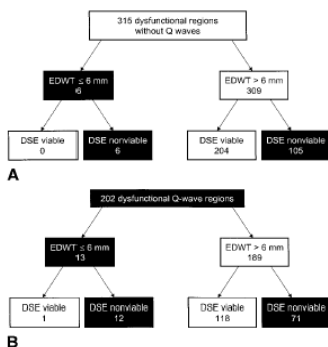
Dobutamin:





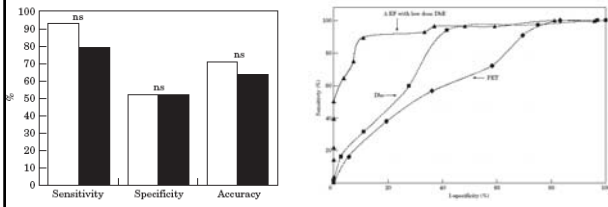
Cwajg 2000

Veggykkelse:



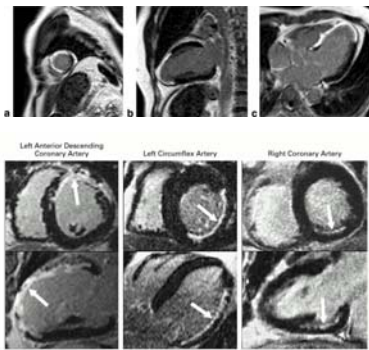
Schinkel 2002

DSE vs PET:



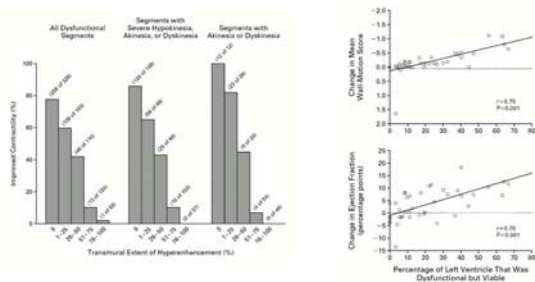
Pasquet 2000

MR:



Kim 2000

Prognostisk verdi for recovery:



Utredning av viabilitet etter infarkt:

