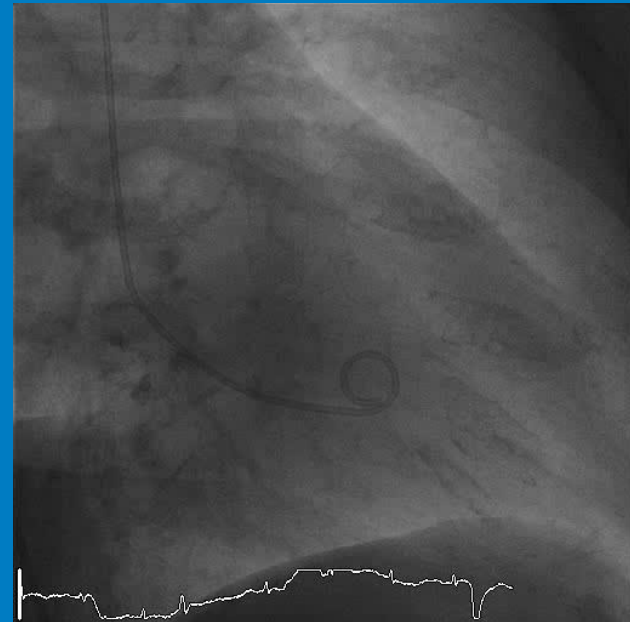


Takotsubo Kardiomyopathie



(参考文献 3 ホームページより引用)



Takotsubo Kardiomyopathie

Templin C et al. *N Engl J Med.* 2015

The NEW ENGLAND JOURNAL of MEDICINE

ORIGINAL ARTICLE

Clinical Features and Outcomes of Takotsubo (Stress) Cardiomyopathy

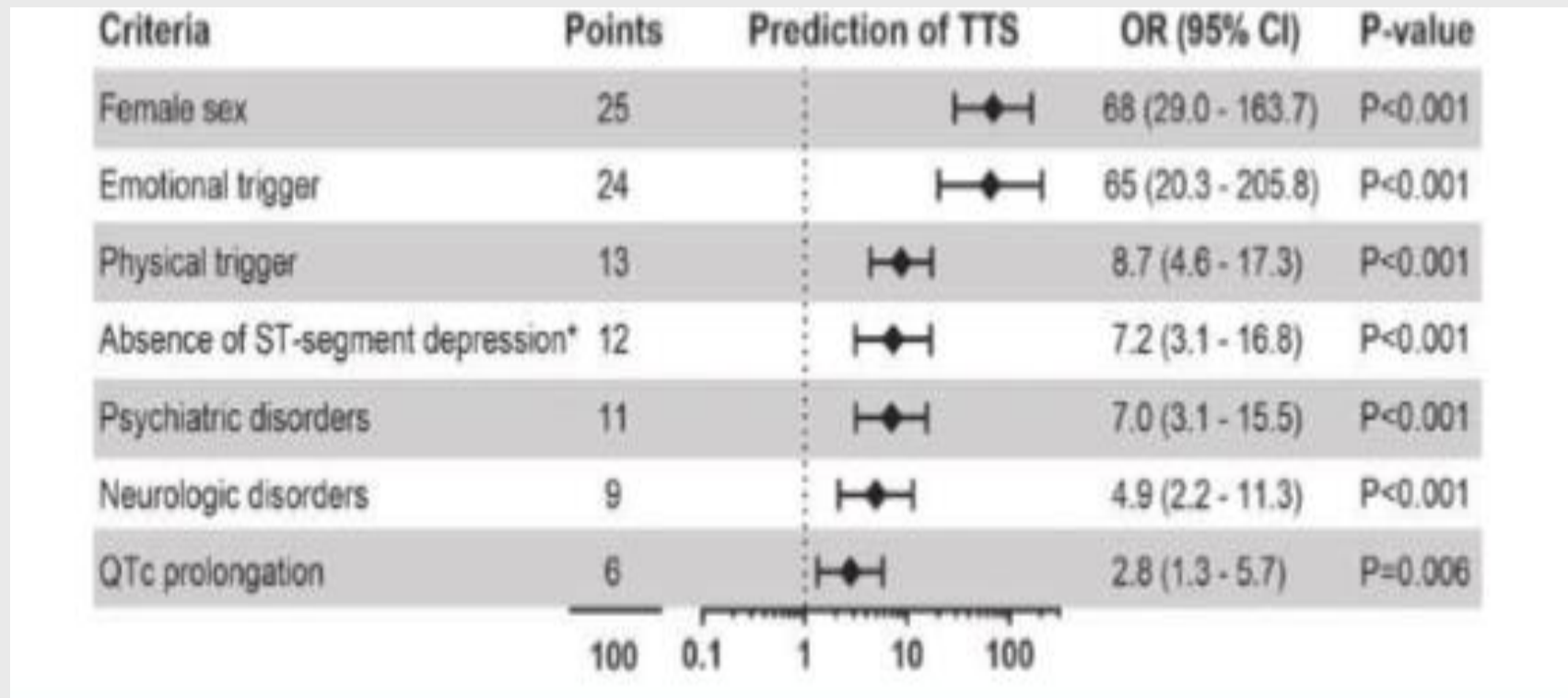
C. Templin, J.R. Ghadri, J. Diekmann, L.C. Napp, D.R. Bataiosu, M. Jaguszewski, V.L. Cammann, A. Sarcon, V. Geyer, C.A. Neumann, B. Seifert, J. Hellermann, M. Schwyzer, K. Eisenhardt, J. Jenewein, J. Franke, H.A. Katus, C. Burgdorf, H. Schunkert, C. Moeller, H. Thiele, J. Bauersachs, C. Tschöpe, H.-P. Schultheiss, C.A. Laney, L. Rajan, G. Michels, R. Pfister, C. Ukena, M. Böhm, R. Erbel, A. Cuneo, K.-H. Kuck, C. Jacobshagen, G. Hasenfuss, M. Karakas, W. Koenig, W. Rottbauer, S.M. Said, R.C. Braun-Dullaeus, F. Cuculi, A. Banning, T.A. Fischer, T. Vasankari, K.E.J. Airaksinen, M. Fijalkowski, A. Rynkiewicz, M. Pawlak, G. Opolski, R. Dworakowski, P. MacCarthy, C. Kaiser, S. Osswald, L. Galiuto, F. Crea, W. Dichtl, W.M. Franz, K. Empen, S.B. Felix, C. Delmas, O. Lairez, P. Erne, J.J. Bax, I. Ford, F. Ruschitzka, A. Prasad, and T.F. Lüscher

Takotsubo Kardiomyopathie

Diagnostik
Differentialdiagnostik

Takotsubo - Score

Ghadri JR et al .Eur Heart J. 2016 Oct 1;37(37):2823-2829



Cut off: 40 Punkte

Takotsubo Kardiomyopathie - Happy Heart Syndrome -

Ghadri JR C et al. *Eur Heart J*. 2016

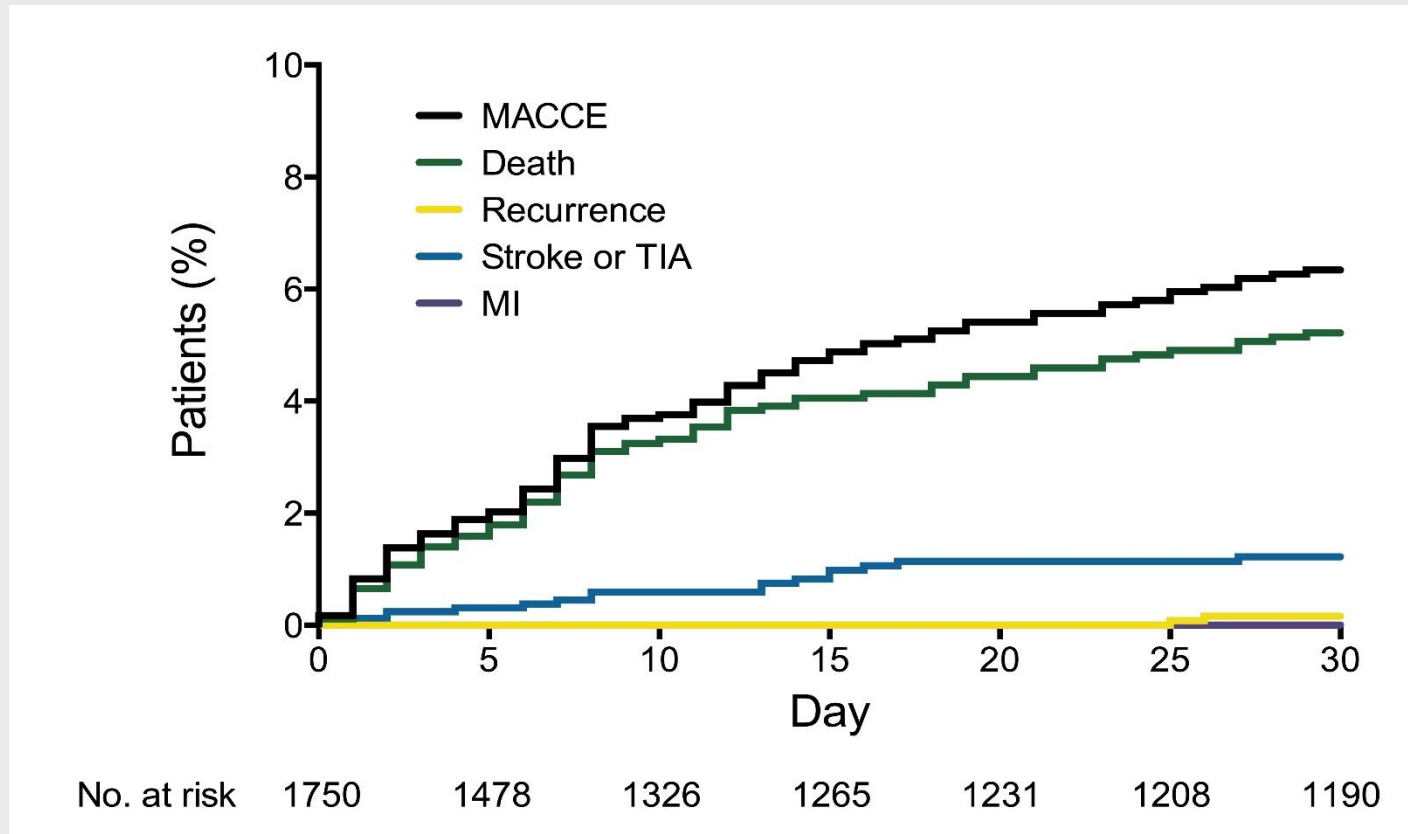
Patient	Joyful event
Patient 1	Birthday party
Patient 2	Son's wedding
Patient 3	Meeting after 50 years with friends from high school
Patient 4	Preparing 50 th wedding anniversary
Patient 5	Positive job interview
Patient 6	Wedding
Patient 7	Watching race car competition
Patient 8	Becoming Grandmother
Patient 9	Surprise farewell celebration
Patient 10	Son's company opening
Patient 11	Favorite rugby team wins
Patient 12	Emotional speaking during a friend's birthday
Patient 13	Celebrating 80 th birthday
Patient 14	Winning several jackpots at the casino
Patient 15	Alcohol consumption in celebration of normal PET-CT scan
Patient 16	Visiting opera with her family
Patient 17	Family party
Patient 18	Unexpected visit from the nephew
Patient 19	Grandchildren visiting from London (abroad)
Patient 20	Becoming great grandmother

Takotsubo Kardiomyopathie

Prognose

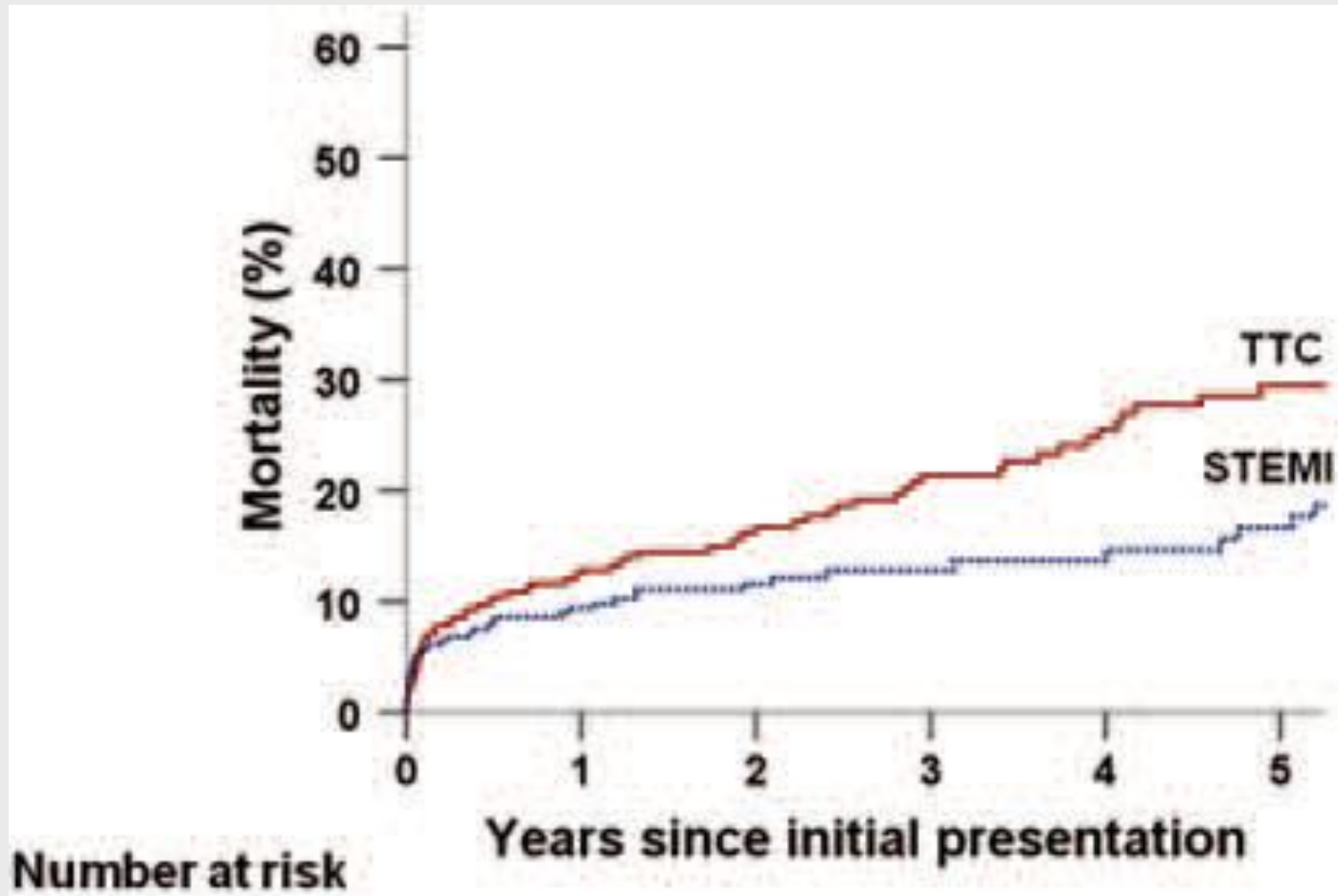
Takotsubo Kardiomyopathie - 30-Tage Outcome -

Templin C et al. N Engl J Med. 2015



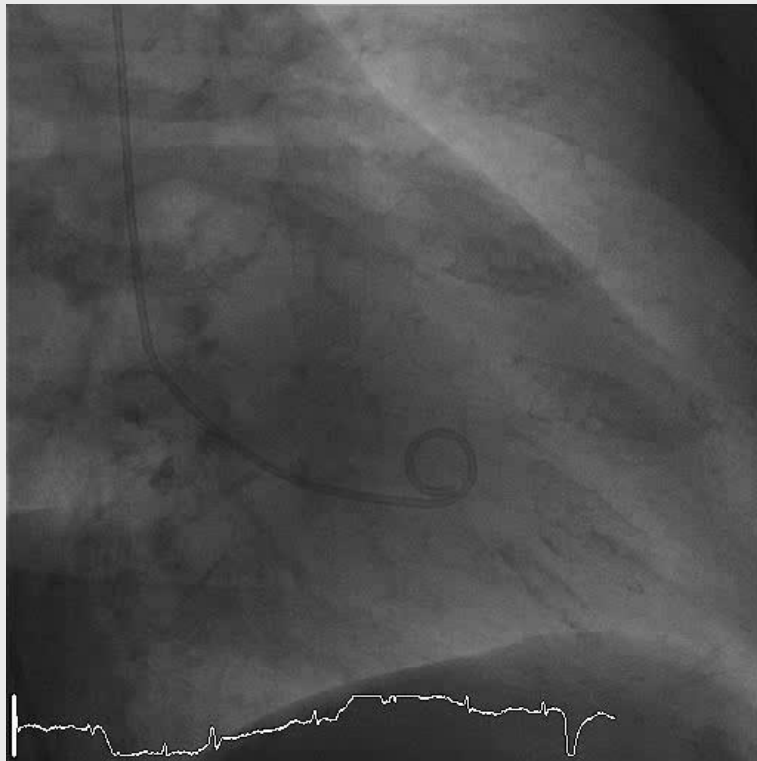
Kaplan—Meier Kurve zur Langzeitmortalität

Stiermaier T et al, Eur J Heart Fail 2016, 18: 650-656

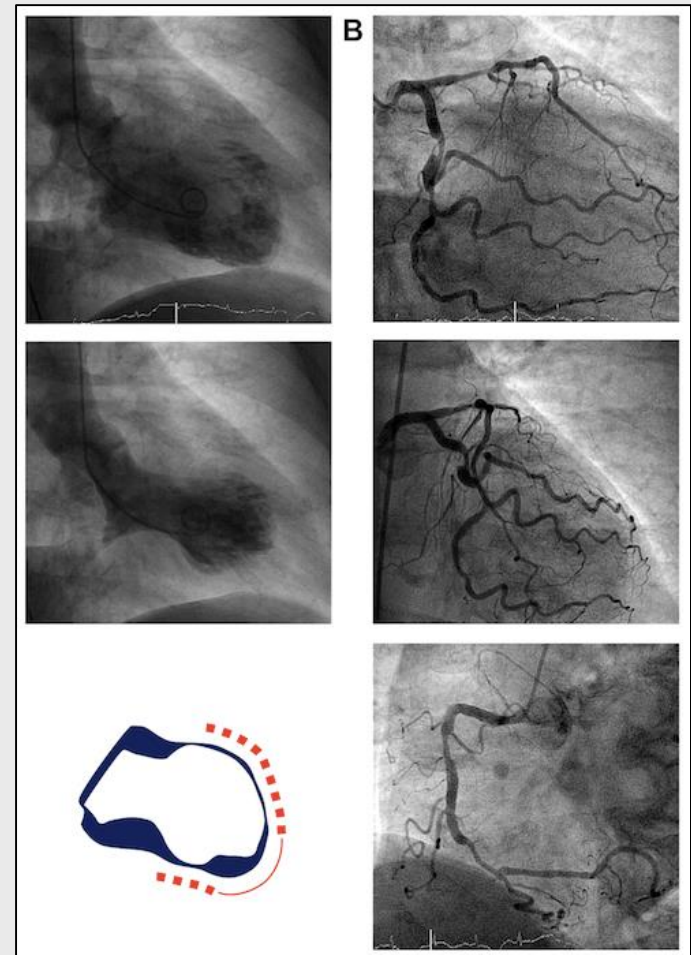


Takotsubo Kardiomyopathie - Koronare Herzerkrankung als Komorbidität -

Napp LC et al J Cardiol 2015

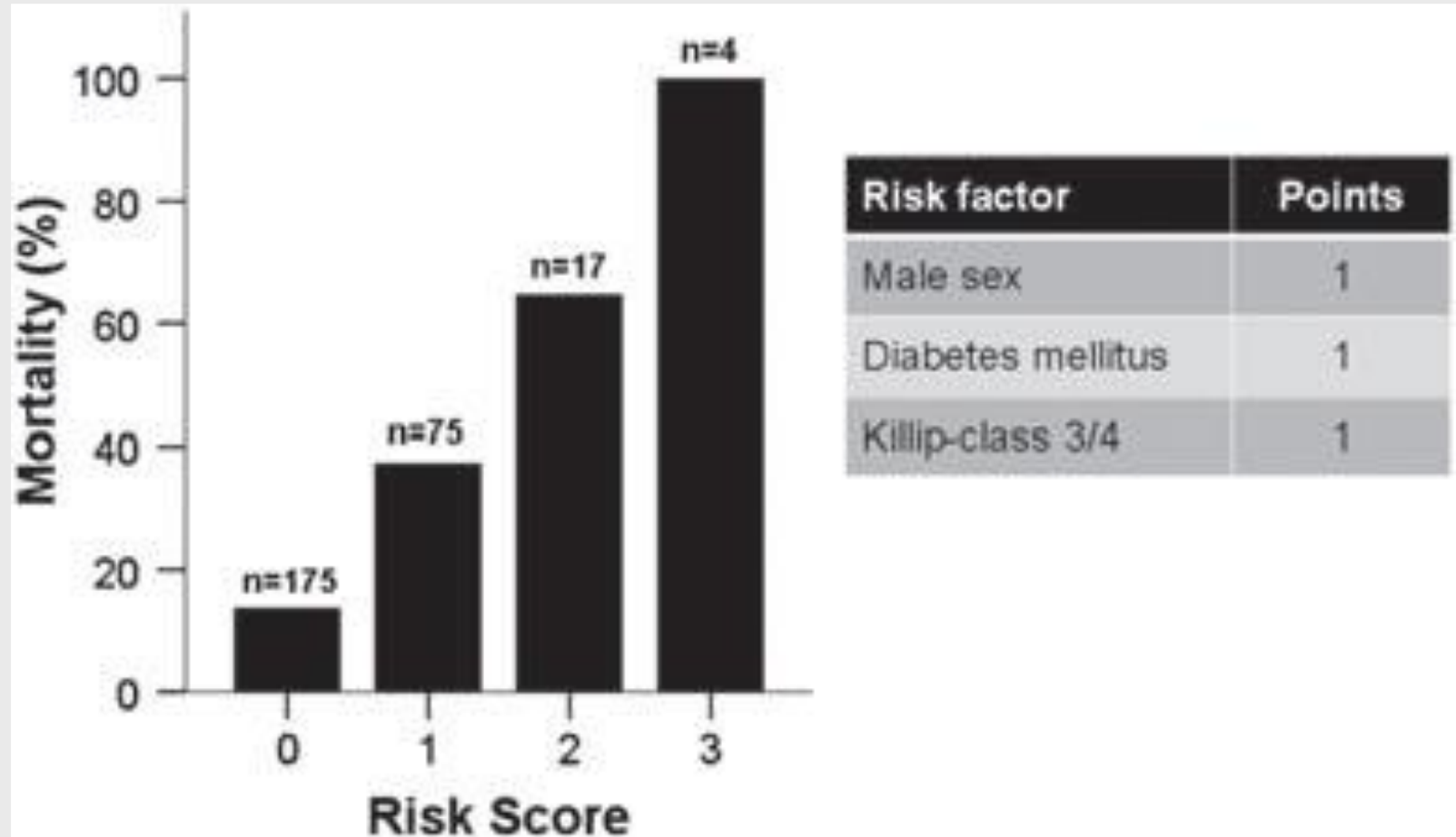


ca. 15% der TTC Patienten haben eine begleitende KHK ($\geq 50\%$ Stenose)



Risikofaktoren für eine reduzierte Prognose bei der Takosubo Kardiomyopathie

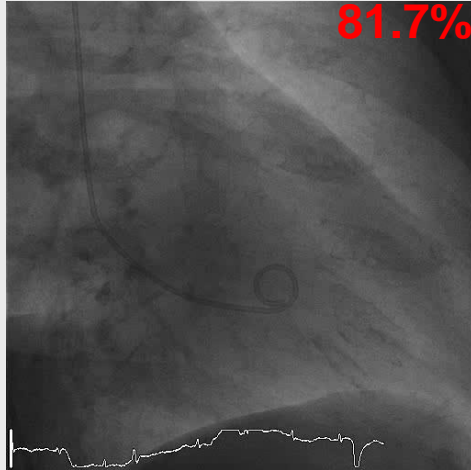
Stiermaier T et al, Eur J Heart Fail 2016, 18: 650-656



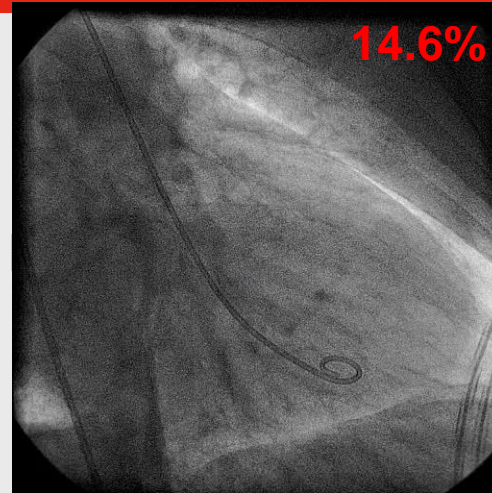
Takotsubo Kardiomyopathie

- Typen -

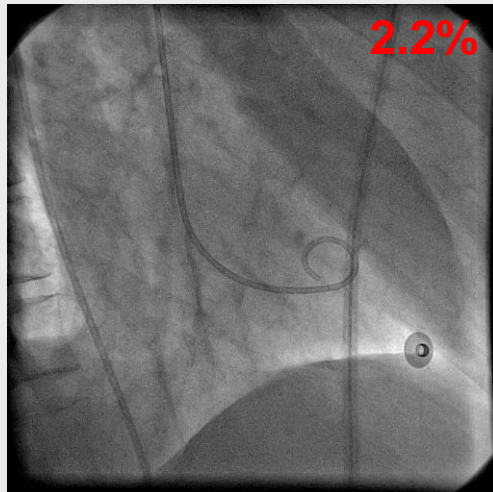
apikaler Typ



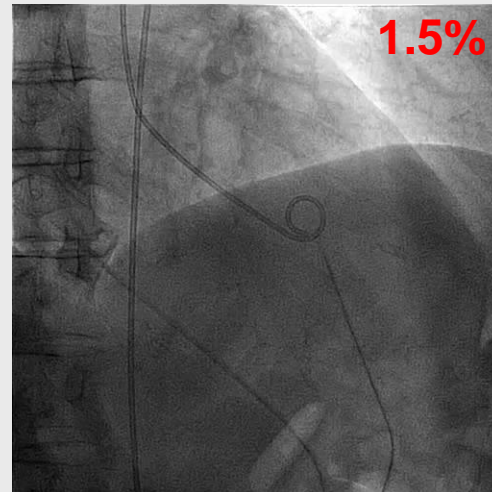
midventrikulär



basaler Typ

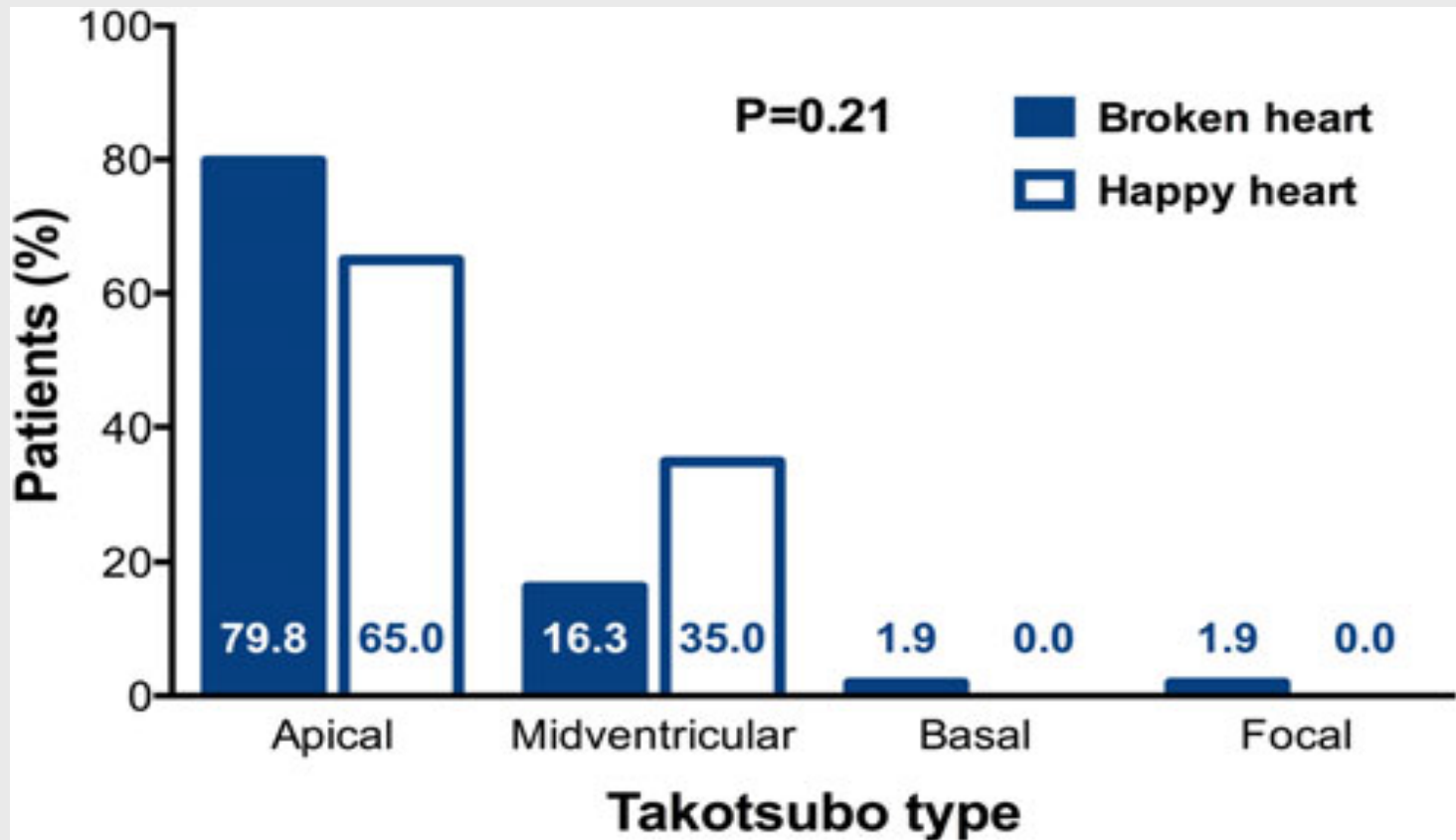


fokaler Typ



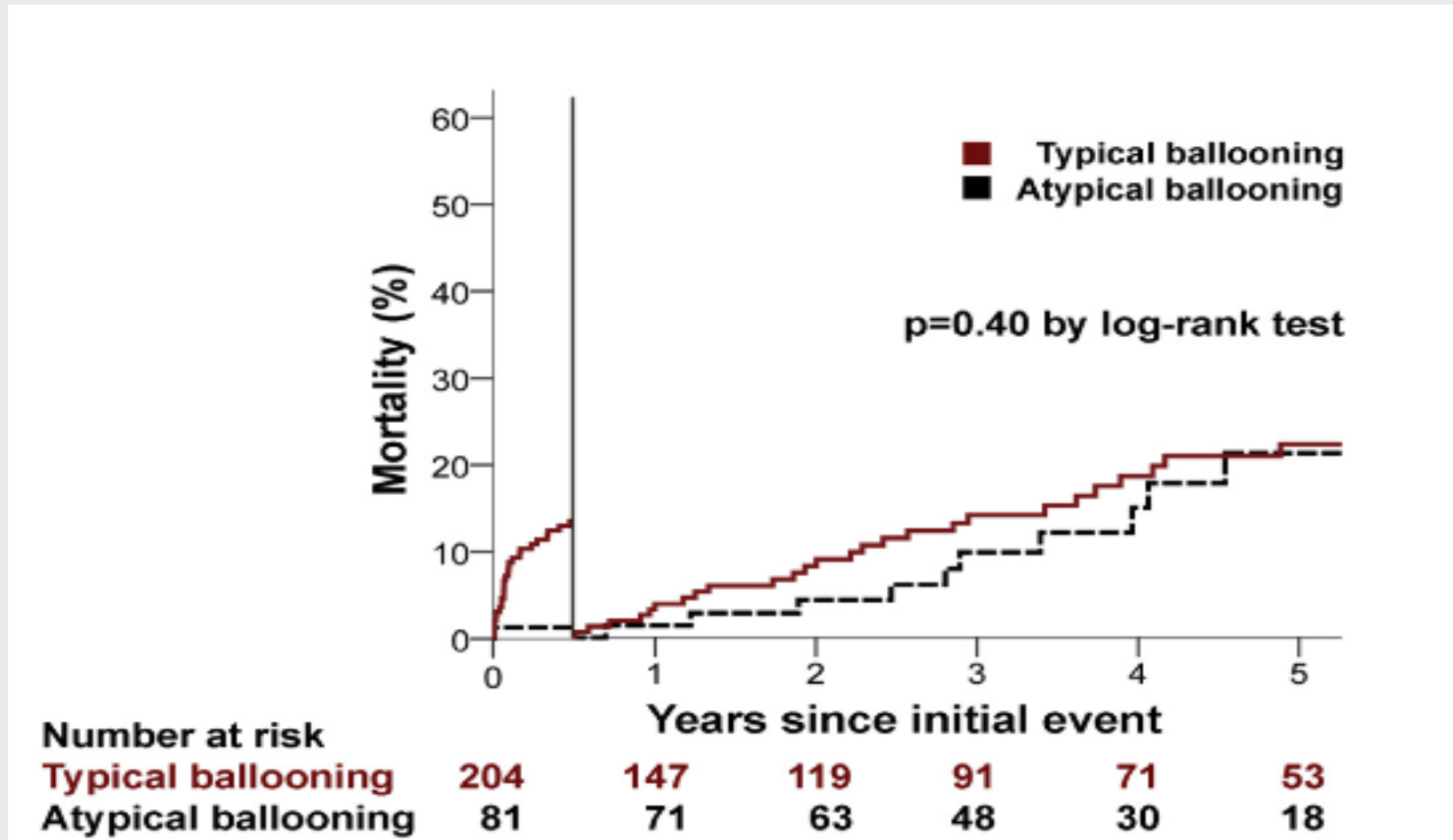
Verteilung der Wandbewegungsstörungen

(Ghadri JR et al .Eur Heart J. 2016 Oct 1;37(37):2823-2829)



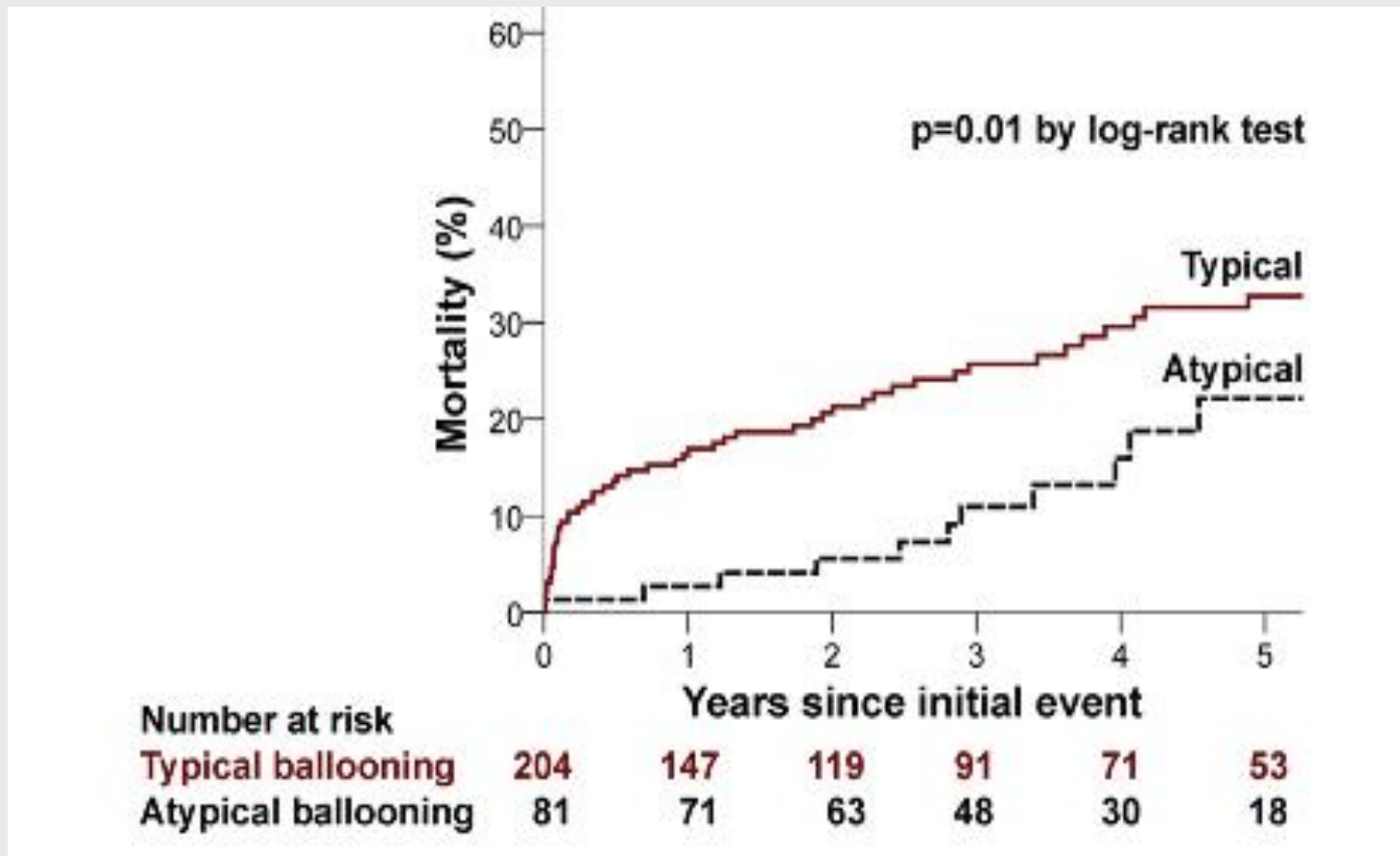
Prognose: typische vs atypische TCC nach 6 Monaten

(Stiermaier T, et al. Am J Cardiol. 2016 Dec 1;118(11):1737-1741)



Mortalität: typische vs atypische TCC nach 6 Jahren

(Stiermaier T, et al. Am J Cardiol. 2016 Dec 1;118(11):1737-1741)



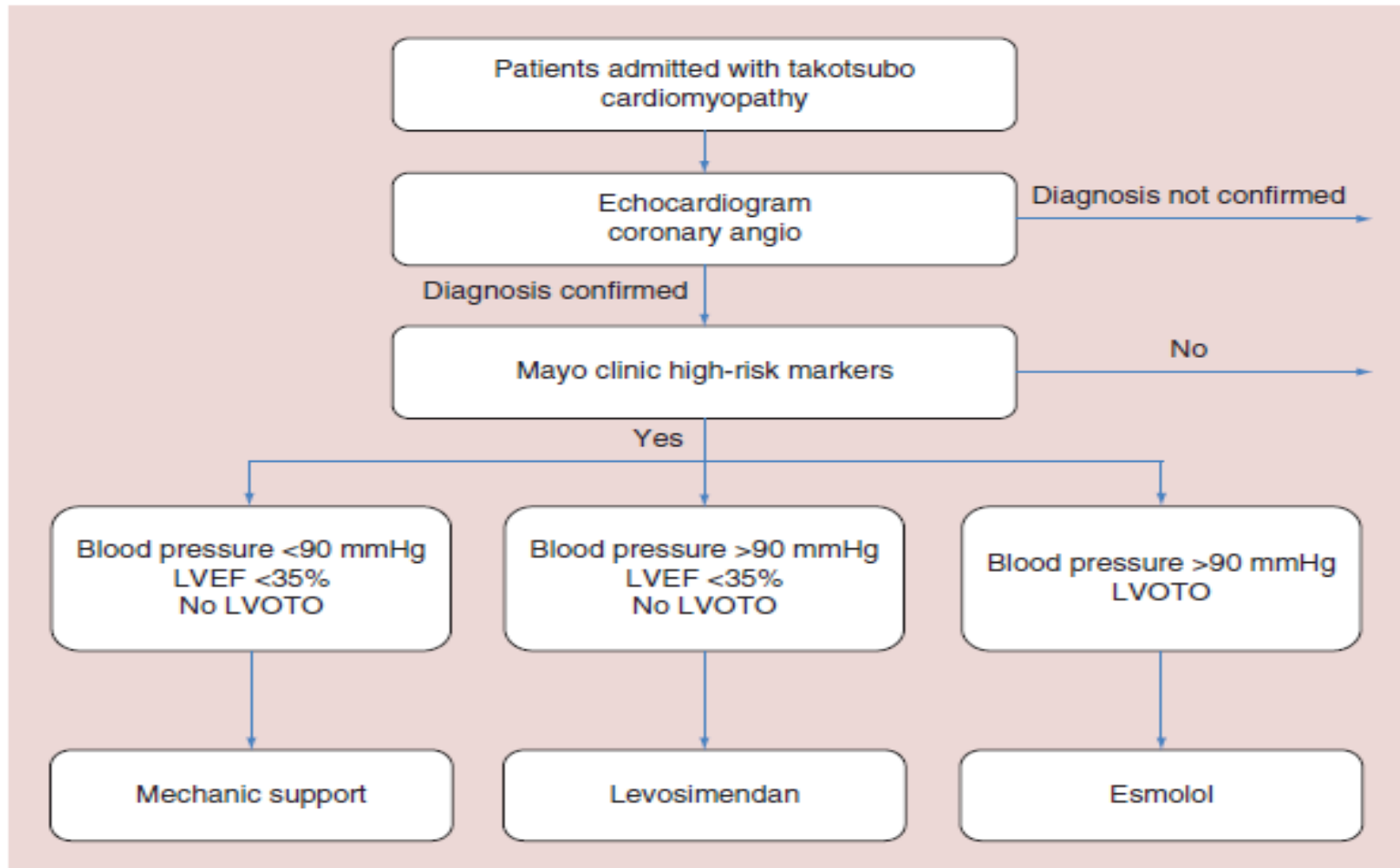
Takotsubo Kardiomyopathie

Therapie
Akut

Takotsubo- Behandlungsvorschlag

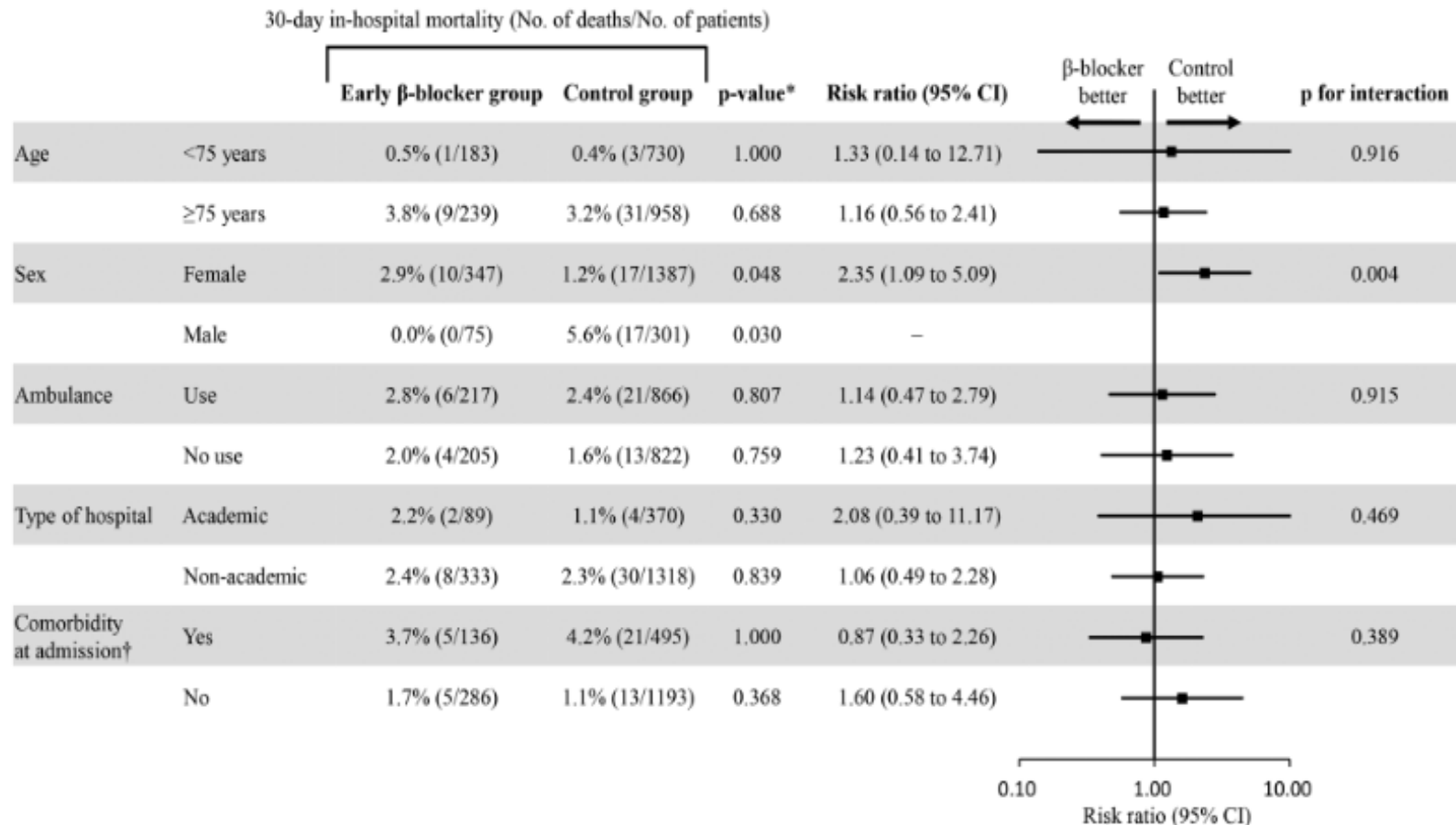
Akutbehandlung bei hohem Risiko und Instabilität / Schock

Brunetti ND et al Future Cardiol. 2016 Sep;12(5):563-72



Kein Effekt einer Beta-Blocker Therapie im Hinblick auf die 30 Tages Mortalität bei der TCC

(Isogai T et al. Heart. 2016 Jul 1;102(13):1029-35)



Takotsubo- Behandlungsvorschlag

Akutbehandlung bei hohem Risiko und Instabilität / Schock

Brunetti ND et al Future Cardiol. 2016 Sep;12(5):563-72

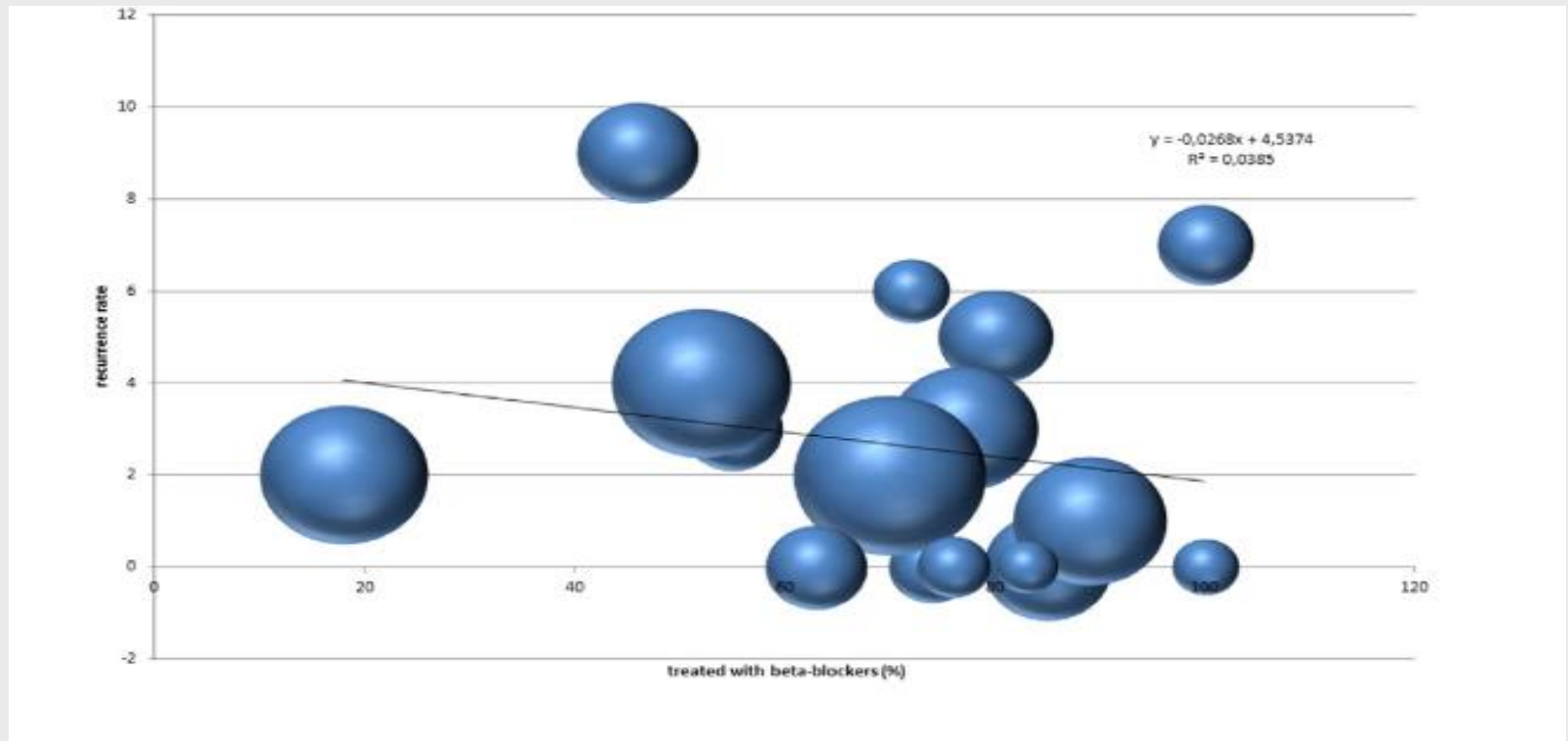
Acute phase	Potential benefit	Shortcomings
Antiplatelets	Coronary flow	Lack of evidence
Anticoagulants	LV thrombosis	No routinely
β -blockers	LVOTO	Hypotension
ACE inhibitors	LV remodeling	Lack of evidence
Calcium-channel antagonists	LV function/coronary spasm	Poor evidence
Antiarrhythmics	Arrhythmias	QT prolongation, no routinely
Diuretics	Pulmonary edema	Intraventricular gradient
Levosimendan	Cardiogenic shock, high risk	Arrhythmias, hypotension
Mechanic support	Cardiogenic shock	Not always accessible

Takotsubo Kardiomyopathie

Therapie
Akut
Verlaufstherpaie

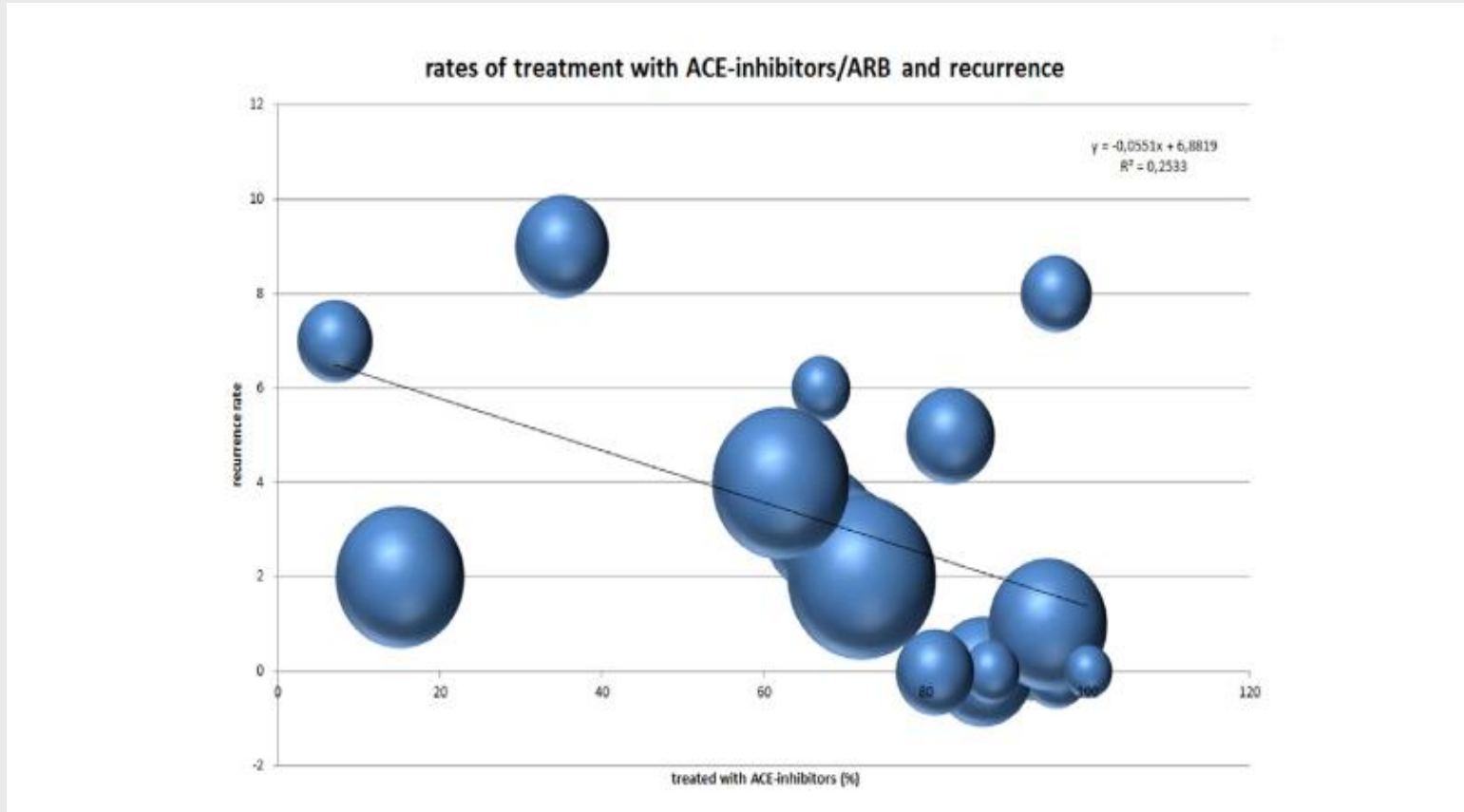
TCC-Rezidive und B- Blocker (p = n.s.)

(Brunetti ND, et al *Int J Cardiol.* 2016 Jul 1;214:340-2)



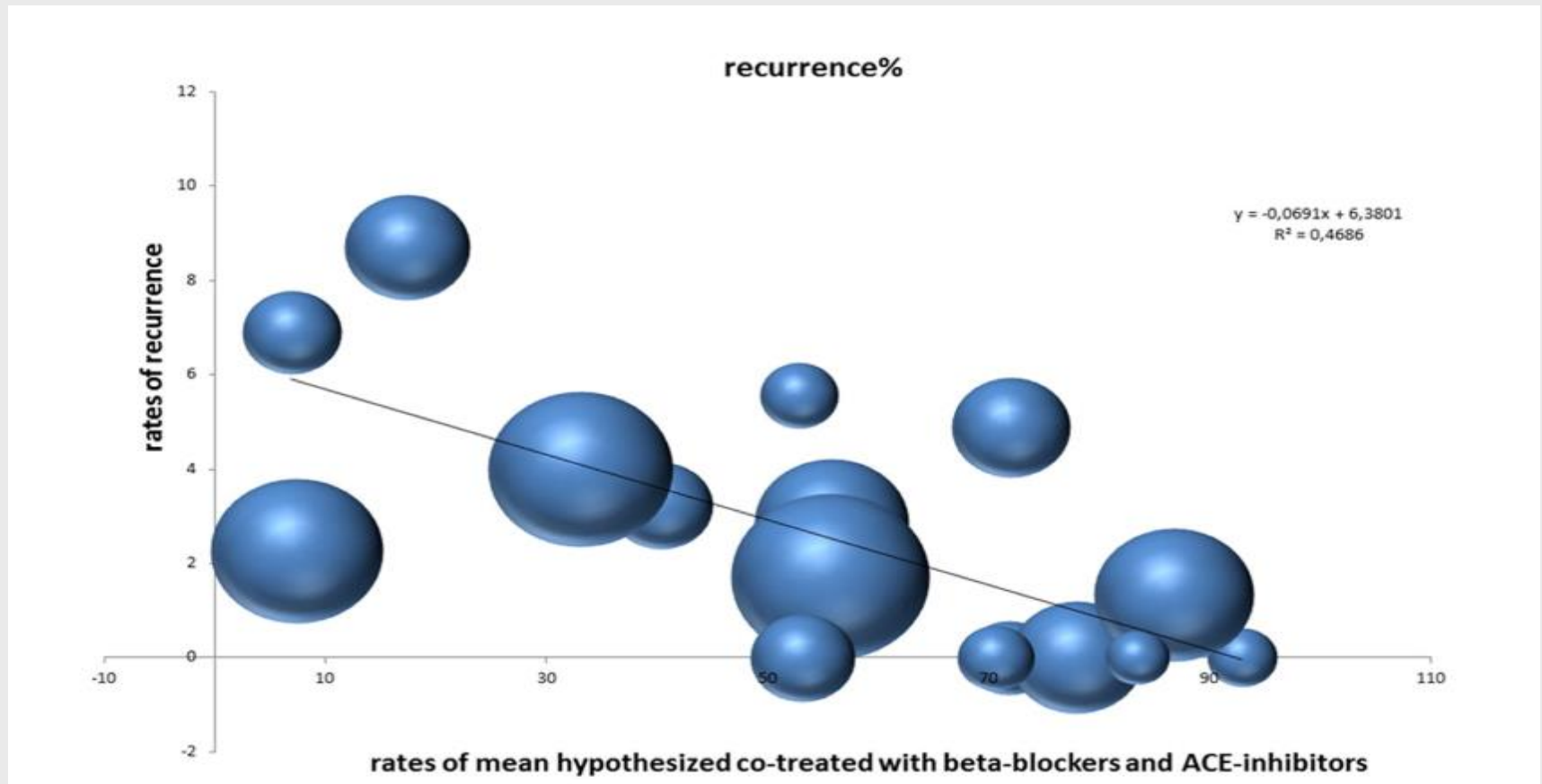
ACEI/ARBs reduzieren die TCC Rezidive ($p < 0.05$)

(Brunetti ND, et al *Int J Cardiol.* 2016 Jul 1;214:340-2)



Beta-Blocker und ACEI/ARBs in Kombination reduzieren am besten die TCC Rezidivrate

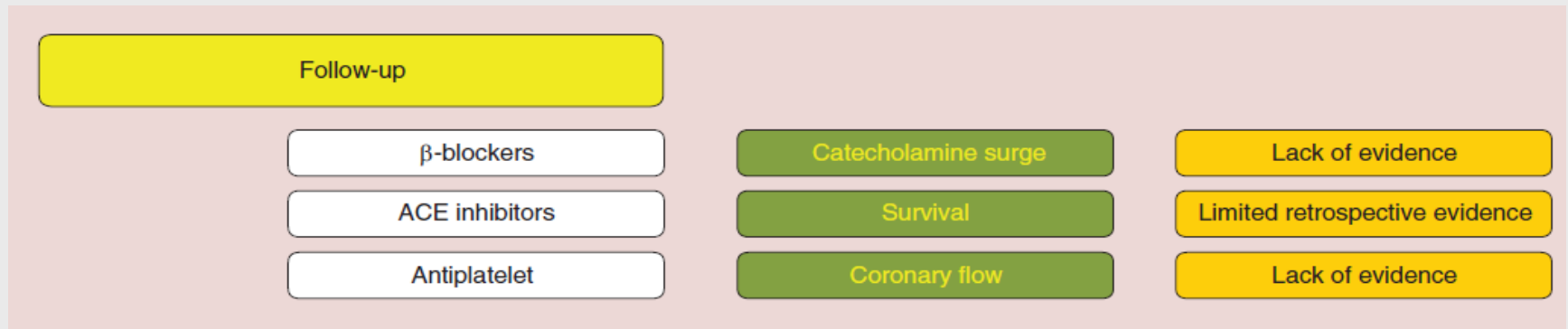
(Brunetti ND, et al. *Int J Cardiol.* 2017 Mar 1;230:281-283)



Takotsubo- Behandlungsvorschlag

Verlaufsbehandlung

Brunetti ND et al Future Cardiol. 2016 Sep;12(5):563-72



Takotsubo Kardiomyopathie

Zusammenfassung:

- Hohe Mortalität
- Durch Risikofaktoren/Scores weiter einzuschätzen
- Schlechte Prognose bei apikalem Typ
 - Therapie:
akut: Verzicht auf Beta Mimetika
Verlauf: ACEI und Beta-Blocker