Clinical update no. 536
1 May 2019

The NEW ENGLAND JOURNAL of MEDICINE

ORIGINAL ARTICLE

Early or Delayed Cardioversion in Recent-Onset Atrial Fibrillation

for the RACE 7 ACWAS Investigators*

This article was published on March 18, 2019, at NEJM.org.

It is not clear whether immediate cardioversion to sinus rhythm (either by drugs or shock) is of benefit for new onset AF. AF often reverts spontaneously.

This open-label, noninferiority Dutch trial randomised patients with stable, symptomatic AF present <36hr to delayed or early cardioversion. The delayed approach involved initial rate control and cardioversion if AF did not resolve within 48 hours from onset, generally a day after the initial ED visit.

The primary end point was the presence of sinus rhythm at 4 weeks.

Sinus rhythm at 4 weeks occurred in 193/212 (91%) in the delayed-cardioversion group and 202/215 (94%) in the early-cardioversion group (P = 0.005 for noninferiority).

In the delayed group, there was spontaneous conversion to SR within 48 hr onset in 69%.

Of those monitored during the 4wk follow up, there was recurrence of AF in 30% in both groups. Complications were uncommon and did not differ by group.

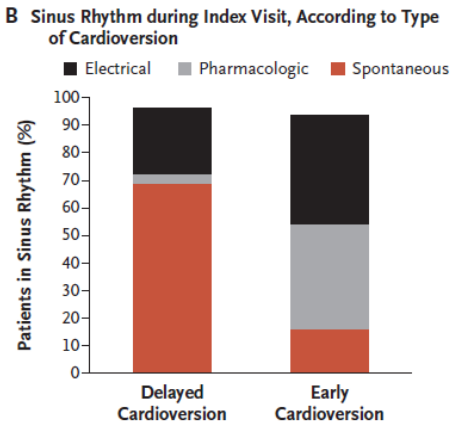

Figure 2. Primary End Point and Distribution of Cardioversion Methods.

In the early cardioversion group there was spontaneous reversion to SR in about 16% while preparing for cardioversion, and for the rest there was a similar proportion who reverted with drugs (usually flecanide) or shock.

In the delayed group reversion was mostly by electrical cardioversion among the 31% who did not spontaneously revert.

Anticoagulation was given based on the CHA2DS2VASc risk score. There was 1 stroke/TIA at 4 weeks in each of the groups (<0.5%). One occurred 5 days after spontaneous conversion while on dabigatran initiated at the index visit (risk score 2). The other occurred 10 days after early electrical cardioversion while on rivaroxaban initiated at the index visit (risk score 3).

If AF duration is unknown then there should be long term anticoagulation prior to attempting reversion.

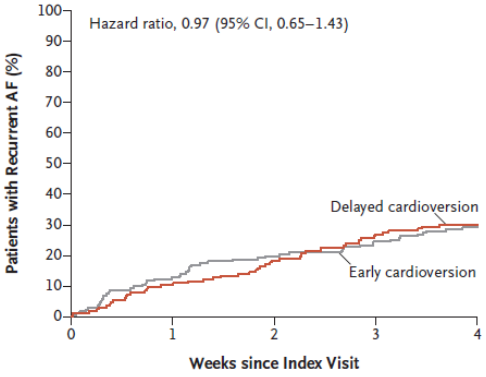

Figure 3. First Recurrence of Atrial Fibrillation.

Recurence at 4wk was similar in both groups.

The NEW ENGLAND JOURNAL of MEDICINE

EDITORIAL

The RACE to Treat Atrial Fibrillation in the Emergency Department

For most patients with recent-onset atrial fibrillation, the wait-and-see approach may become the preferred strategy,

The NEW ENGLAND JOURNAL of MEDICINE

ORIGINAL ARTICLE

Coronary Angiography after Cardiac Arrest without ST-Segment Elevation

This article was published on March 18, 2019, at NEJM.org.

The role of immediate post arrest without STEMI is uncertain.

This Dutch study (COACT trial) randomised 552 patients post cardiac arrest with shockable rhythm and ROSC without STEMI to immediate coronary angiography or delayed until after neurologic recovery. Exclusions included shock and severe renal impairement.

The primary end point was 90 day survival.

Secondary end points included neurological recovery and various markers of shock.

90 day survival was 64.5% with immediate PCI v 67.2% (P = 0.51). There was no significant differences in other end points.

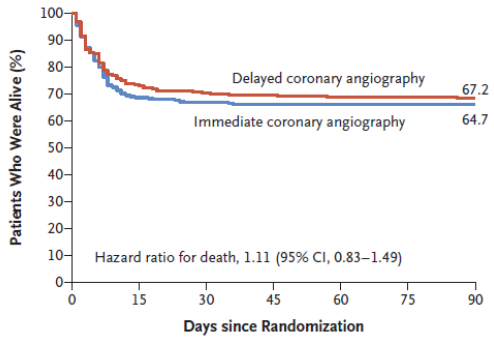

Table 2. Procedures, Treatments, and Characteristics of Coronary Artery Disease.*

Variable	Immed. %	Delayed %
Angiography done	97	65
No signif. CAD	35	34
1 vessel	27	28
2 vessel	20	20
3 vessel	17	17
Acute unstable lesion	14	17
Ac. thrombotic occln.	3	8
CABG	6	9
PCI/revascularisation	33	24
Medical treatment	61	67
Time to PCI (hours)	2.3	122

Table 3. Clinical Outcomes.*

90 days survival	65	67
Survival with good neurolog function, mild or mod. disability	63	64

The NEW ENGLAND JOURNAL of MEDICINE

EDITORIAL

Coronary Angiography after Cardiac Arrest — The Right Timing or the Right Patients?

Although clinically significant coronary disease is common in patients who have cardiac arrest, the selection of patients for coronary angiography remains controversial, except that STEMI should undergo immediate PCI.

Initial arrest rhythm, troponin and ECG are poor predictors of acute coronary lesions that require intervention.

Acute unstable coronary lesions were found in <20%, and coronary interventions at cath were done in <40%. The challenge is to identify a subgroup who might benefit, such as known IHD or preceeding symptoms suggetive of ACS. Of note, >60% of deaths were due to neurologic injury. It is important that PCI does not compromise other post arrest care such as temperature management.

The findings mirror NSTEMI without cardiac arrest, where delayed v immediate PCI had similar outcomes. Further trials on post arrest PCI are underway, ACCESS and DISCO.