


Case report

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Beta-blocker
Strasbourg 2009
WADA Symposium

Case report

- white male, kaukasian type, born 1960
- Dislipidaemia
-  1996 myocardial infarction



4-bypass OP

- Follow-up:
 - postinfarctional myocardial insufficiency

Case report2

- 9-2007 troponine(+)-coronary syndrome, ischemic post-infarctious myocardopathy



Ejection fraction 40%



– PTCA

discovering 100% stenosis IVA prox.

90% stenosis IVA med.

Case report3

European Society for Cardiology:

Beta-blockers should be given to all patients with reduced LV-function (EBM IA)

Case report4

Home medication:

- | | |
|-------------------|---------|
| 1. Atenolol | 100mg/d |
| 2. Atorvastatine | 40mg/d |
| 3. Salicylic acid | 300mg |
| 4. Clopidogrel | 75mg |

Follow up: asymptomatic

„I want to do archery sports“

Auditory

- Would you try another medication to give the patient a chance for archery under the WADA code?

Auditory

- The rules for the use of beta-blockers should be harmonized for all IFs
- – Yes /No?

Auditory

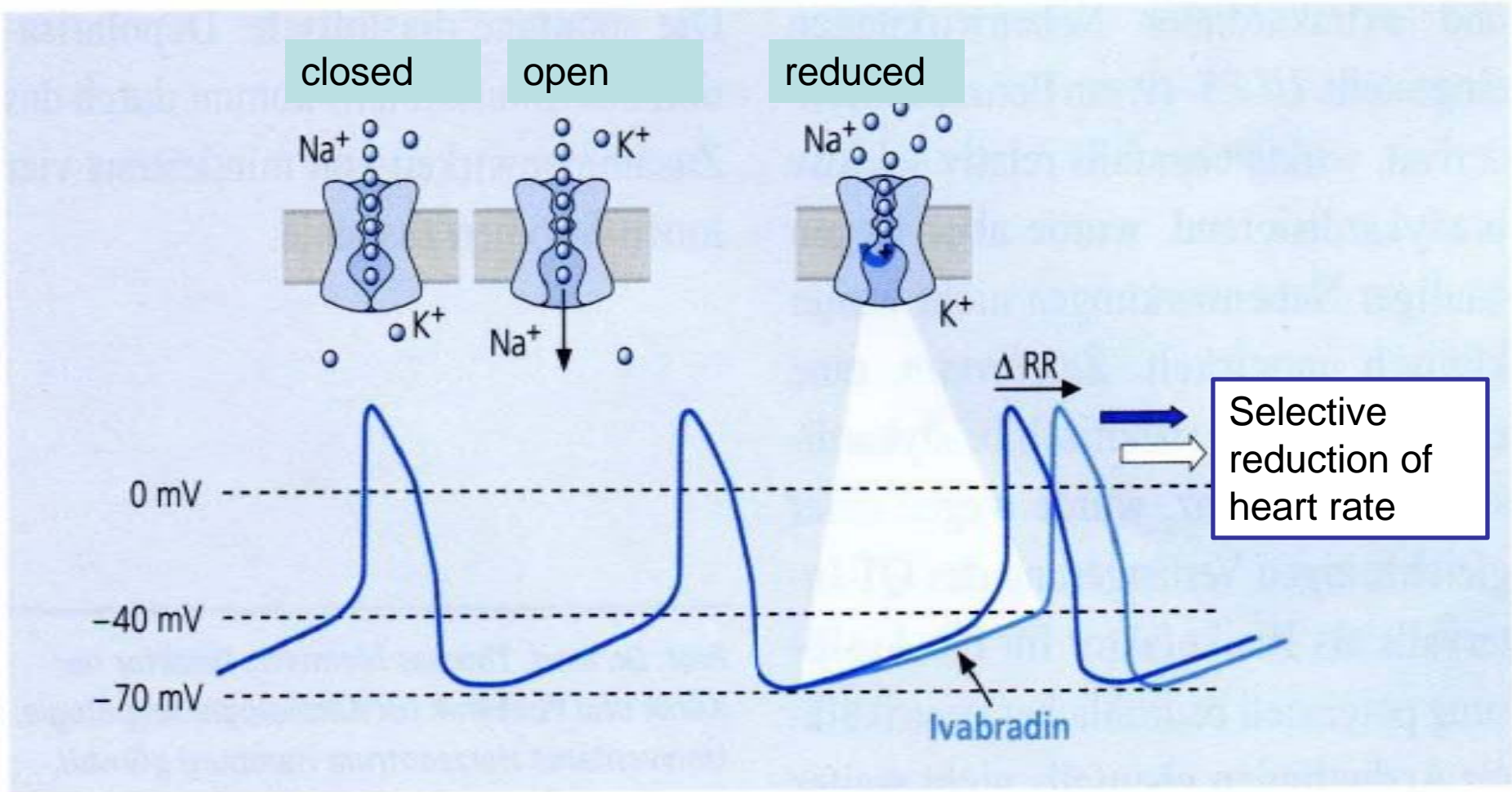
- Should we start a discussion of any heart rate modifying substances?

To open the discussion:

Do we need (oldfashioned) beta-blockers
at all?

- why not take a modern antiarrhythmic agent?
 - isolated effect on heart rate
 - wide therapeutic window
 - selective and efficient
 - no rebound effect
 - effective metabolization of oxygen

*But this drug may enhance performance in
daily life and/or sports*



Selective and specific I_f -channel blocking with Ivabradin

FITA decision

- Approval of TUE for Betablockers – clear medical indication
- but**
- No international competition
- No allowance for RTP

A new point of view...

- Strict rules for the international, olympic and RTP athlete
- Differentiating between RTP-class and „senior class“ athletes to promote health and sports for example in national championships

Thank you

Martin JM Bauer, GER

FITA TUE Chair

Tardif TC, Ford I. et al: Efficacy of ivabradine, a new selective I(f) inhibitor, compared with atenolol in patients with chronic stable angina.. Eur Heart J. 2005 Dec;26(23):2529-36. Epub 2005 Oct 7.

Circulation. 2003 Feb 18;107(6):817-23.

Antianginal and antiischemic effects of ivabradine, an I(f) inhibitor, in stable angina: a randomized, double-blind, multicentered, placebo-controlled trial.

[Borer JS](#), [Fox K](#), [Jaillon P](#), [Lerebours G](#); [Ivabradine Investigators Group](#).

Weill Medical College of Cornell University, New York, NY, USA. CanadaD45@aol.com

BACKGROUND: Heart rate reduction should benefit patients with chronic stable angina by improving myocardial perfusion and reducing myocardial oxygen demand. This study evaluated the antianginal and antiischemic effects of ivabradine, a new heart rate-lowering agent that acts specifically on the sinoatrial node. **METHODS AND RESULTS:** In a double-blind, placebo-controlled trial, 360 patients with a > or =3-month history of chronic stable angina were randomly assigned to receive ivabradine (2.5, 5, or 10 mg BID) or placebo for 2 weeks, followed by an open-label 2- or 3-month extension on ivabradine (10 mg BID) and a 1-week randomized withdrawal to ivabradine (10 mg BID) or placebo. Primary efficacy criteria were changes in time to 1-mm ST-segment depression and time to limiting angina during bicycle exercise (exercise tolerance tests), performed at trough of drug activity. In the per-protocol population (n=257), time to 1-mm ST-segment depression increased in the 5 and 10 mg BID groups (P<0.005); time to limiting angina increased in the 10 mg BID group (P<0.05). Deterioration in all exercise tolerance test parameters occurred in patients who received placebo during randomized withdrawal (all P<0.02) but not in those still receiving ivabradine. No rebound phenomena were observed on treatment cessation. **CONCLUSIONS:** Ivabradine produces dose-dependent improvements in exercise tolerance and time to development of ischemia during exercise. These results suggest that ivabradine, representing a novel class of antianginal drugs, is effective and safe during 3 months of use; longer-term safety requires additional assessment. PMID: 12591750 [PubMed - indexed for MEDLINE]

Cardiol Res Pract. 2009;2009:179350. Epub 2009 Jul 30.

Heart rate and cardiovascular disease: an alternative to Beta blockers.

[Liang M](#), [Puri A](#), [Devlin G](#).

Department of Cardiology, Waikato Hospital, Pembroke & Selwyn Sts, Private Bag 3200, Hamilton 3240, New Zealand.

Ivabradine, an I(f) inhibitor, acts primarily on the sinoatrial node and is used to reduce the heart rate with minimal effect on myocardial contractility, blood pressure, and intracardiac conduction. Heart rate reduction is an important aspect of care in patients with chronic stable angina and heart failure. Many patients with coronary artery disease have coexisting asthma or chronic obstructive airway disease, and most of them are unable to tolerate beta blockers. Ivabradine may thus be a useful medicine in therapeutic heart rate management especially in patients who are intolerant of beta-blockers.

PMID: 19936114 [PubMed - in process]