海外招請講演

## [IL(E)5]海外招請講演5

座長:丸藤 哲(医療法人 徳洲会 札幌東徳洲会病院救急センター)

Fri. Mar 1, 2019 10:05 AM - 10:55 AM 第5会場 (国立京都国際会館1F Room D)

## [IL(E)5]Tranexamic acid in life threatening bleeding

lan Roberts (London School of Hygiene &Tropical Medicine, UK) 【 同時通訳付き】

Expertise: large-scale clinical trials, systematic reviews, epidemiology.

Qualifications

• MB ChB (1985) • MRCP paediatrics (1988) • PhD (1994) • FRCP (2009) • FFPH (2001)

**Employment** 

August 1995 - March 2001 Director, Child Health Monitoring Unit, Institute of Child Health.

Honorary Consultant, Great Ormond Street Hospital for Children.

Current appointment (since May 2001)

Professor of Epidemiology and Public Health, London School of Hygiene & Tropical Medicine

Director, LSHTM Clinical Trials Unit

Coordinating Editor, Cochrane Injuries Group, Cochrane Collaboration

Head, World Health Collaborating Centre on Research and Training in Violence and Injury Prevention

Honorary Consultant in Trauma Services, Barts and the Royal London NHS Trust

Selected relevant roles

Director, WHO Collaborating Centre on Violence and Injury Prevention

Editor-in-Chief and Founder, Cochrane Injuries Group (impact factor 7.7)

Founder and member, Climate and Health Council (http://www.climateandhealth.org/)

Founder and member, International Council for Road Safety

Trustee, RoadPeace (UK Victims of Road Traffic Crashes)

## Relevant publications

WOMAN Trial Collaborators (Roberts I PI). Effect of early administration of tranexamic acid on mortality, hysterectomy, other morbidities in women with postpartum haemorrhage (The WOMAN trial): a randomised, placebo-controlled trial. Lancet 2017; 389: 2105-2116.

CRASH-2 collaborators, Roberts I (PI), Shakur H, Afolabi A, Brohi K, Coats T, et al. The importance of early treatment with tranexamic acid in bleeding trauma patients: an exploratory analysis of the CRASH-2 randomised controlled trial. Lancet. 2011;377(9771):1096-101, 101 e1-2. Epub 2011/03/29.

CRASH-2 trial collaborators, Shakur H, Roberts I (PI), Bautista R, Caballero J, Coats T, et al. Effects of tranexamic acid on death, vascular occlusive events, and blood transfusion in trauma patients with significant haemorrhage (CRASH-2): a randomised, placebo-controlled trial. Lancet. 2010;376(9734):23-32. Epub 2010/06/18.

Angèle Gayet-Ageron, David Prieto-Merino, Katharine Ker, Haleema Shakur, François-Xavier Ageron, Ian Roberts for the Anti-fibrinolytic Trials Collaboration. Effect of treatment delay on the effectiveness and safety of antifibrinolytics in acute severe haemorrhage: a meta-analysis of individual patient-level data from 40 138 bleeding patients. Lancet 2017 Nov 7. pii: S0140-6736(17)32455-8. doi: 10.1016/S0140-6736(17)32455-

## Selected current projects:

The international CRASH-3 trial: A randomised placebo controlled trial to quantify the effectiveness and safety of a short course of tranexamic acid (TXA) in 10,000 adults with acute traumatic brain injury (TBI). Funded by the UK Medical Research Council, The Wellcome Trust, the UK Department for International Development and the National Institute of Health Research. (£3.7 million). https://ctu-web.lshtm.ac.uk/c3w/

The international HALT-IT trial: Tranexamic acid for the treatment of gastrointestinal haemorrhage: an international randomised, double blind placebo controlled trial in 8,000 patients. http://haltit.lshtm.ac.uk/ Getting research into practice: GATES Foundation US\$3 million (to ensure that the results of the woman trial improve the care of women with post-partum haemorrhage world-wide).

The CRASH-2 trial was a large randomised placebo controlled trial of tranexamic acid in patients with or at risk of traumatic haemorrhage that was undertaken in 274 hospitals in 40 countries. A total of 20 211 adult trauma patients with, or at risk of, significant bleeding were randomly assigned within 8 h of injury to either tranexamic acid (loading dose 1 g over 10 min then infusion of 1 g over 8 h) or matching placebo. The results showed that early (within three hours of injury) tranexamic acid treatment reduces the risk of death due to bleeding by about 30% and that treatment beyond three hours is ineffective. Similar results were obtained in the Woman trial of tranexamic acid in the treatment of post-partum haemorrhage that included 20,060 recruited from 193 hospitals in 21 countries. An individual patient data meta-analysis of the two trials showed that tranexamic acid significantly increased overall survival from bleeding (odds ratio [OR] 1.20, 95% CI 1•08–1•33; p=0•001), with no heterogeneity by site of bleeding (interaction p=0•7243). However, treatment delay reduced the treatment benefit (p<0.0001). Immediate treatment improved survival by more than 70% (OR 1•72, 95% CI 1•42-2•10; p<0•0001). Thereafter, the survival benefit decreased by 10% for every 15 min of treatment delay until 3 h, after which there was no benefit. There was no increase in vascular occlusive events with tranexamic acid, with no heterogeneity by site of bleeding (p=0.5956). Treatment delay did not modify the effect of tranexamic acid on vascular occlusive events. These results have important implications for patient care both internationally and in Japan and suggest that pre-hospital tranexamic acid administration can substantially increase survival in patients with acute severe bleeding. Efforts to facilitate the pre-hospital use of tranexamic acid in Japan are are currently underway.