Tranexamic acid to improve functional status in adults with spontaneous intracerebral haemorrhage: the TICH-2 RCT

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Plain English summary

The TICH-2 RCT

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Plain English summary

Background

Stroke caused by bleeding in the brain [i.e. an intracerebral haemorrhage (ICH)] is a medical emergency. Around one-third of such strokes are complicated by continuing bleeding, which usually occurs within the first few hours after trauma and childbirth, and is associated with death or severe disability. Tranexamic acid is a drug that is seen to reduce death from bleeding after trauma and childbirth.

Methods

The study enrolled adults within 8 hours of an ICH into this large randomised trial. Half of the participants were given an injection of tranexamic acid and the other half placebo (in the form of salt water). The main aim of the trial was to measure changes in recovery by a telephone questionnaire on how much the person was able to do or needed help with 90 days after the stroke (i.e. functional status). Other measures included amount of brain bleeding, complications after stroke (serious adverse events), drug side effects and death within 7 days of stroke.

Results

A total of 2325 participants from 124 hospitals in 12 countries were enrolled between 2013 and 2017.

Participants treated with tranexamic acid had no significant difference in functional status 90 days after stroke. There were small but significant reductions in brain bleeding, death in the first 7 days and complications after stroke, and tranexamic acid was safe with no increased side effects.

Conclusion

Treatment with tranexamic acid did not result in a significant improvement in recovery at 90 days (i.e. functional status), despite small reductions in the number of early deaths, amount of brain bleeding and the number of complications. Larger trials are needed to confirm if these small benefits observed after treatment with tranexamic acid can significantly improve functional status after stroke due to bleeding in the brain (ICH).

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