



Sugar or Salt trial:

Hyperosmolar therapy in
traumatic brain injury

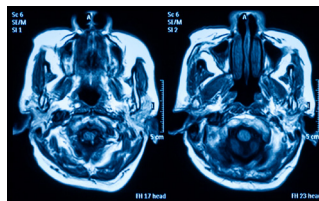
Over one million people each year suffer injuries to their heads which are severe enough that they need to go to hospital.

With the most severe injuries the brain often swells. If this swelling is not treated then the pressure in the skull can get too high, which compresses the brain and causes further damage to the brain.

The main treatments for swelling of the brain involve putting the patient into a coma using drugs (to rest the brain), giving drugs (to reduce brain swelling) and in some cases brain surgery (to release the pressure).

The two drugs that are commonly used to treat brain swelling are:

- A salty solution (hypertonic saline)
- A sugary solution (mannitol)



Usually doctors would give one of these drugs, or a combination of both, but doctors do not yet know which treatment is better for patients.

Both drugs also have unwanted side-effects. For example, hypertonic saline may affect the balance of salts in the blood, and mannitol may cause damage to the kidneys.

When doctors do not know which treatment is best, it is common to undertake a research study, to make sure that future patients have the best possible outcome after a head injury.

These studies involve putting patients into two groups, where one group will receive one treatment (in this case hypertonic saline) and the other group

will receive a different treatment (in this case mannitol). The results are then compared to see if one is better.

To try to make sure the groups are the same to start with, each patient is randomly allocated (by chance) to one of the groups.

This study is being conducted to compare how effective hypertonic saline and mannitol are for reducing the pressure in the brain. It will also measure which drug is better at helping the patient to recover, and what the side effects of each treatment are.

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