Evidence Update

Malaria Series *January 2005*

Do steroids reduce death or disability in people with cerebral malaria?

There is no evidence to support using steroids in people with cerebral malaria, and they may cause harm.

Inclusion criteria

Studies:

Randomized and quasi-randomized controlled trials.

Participants:

Children or adults with clinically diagnosed cerebral malaria, defined as positive malaria blood slide, disturbed mental state, with other causes excluded.

Intervention:

Intervention: corticosteroids (hydrocortisone, dexamethasone, or prednisolone) given in addition to malaria chemotherapy.
Control: malaria chemotherapy identical to the intervention group.

Outcomes:

Primary: death; and death combined with life-threatening complication; any complication; disability six months or more after randomization.
Secondary: time to death; time to recover full consciousness.

Results

- Two trials with a total of 143 participants using intravenous dexamethasone, but different doses. Malaria treated with quinine.
- Allocation concealment was adequate in one trial and unclear in the other.
- No difference in the number of deaths was detected between the steroid and control groups.
- Reports of complications did not exclude those occurring in fatalities, so the results must be interpreted cautiously. More complications were found in the steroid group (relative risk 1.59, 95% confidence interval 1.00 to 2.52).
- Both trials showed gastrointestinal bleeding (RR 8.17, 95% CI 1.05 to 63.57) and seizures (RR 3.32, 95% CI 1.05 to 10.47) were more common in the steroid group.
- In both trials, time to recover consciousness in survivors was longer in the steroid group, but not statistical significant. In fatalities, there was no consistent trend in time to death.

Adapted from Prasad K, Garner P. Steroids for treating cerebral malaria. *The Cochrane Database of Systematic Reviews* 1999, Issue 3. Art. No.: CD000972. DOI: 10.1002/14651858.CD000972.

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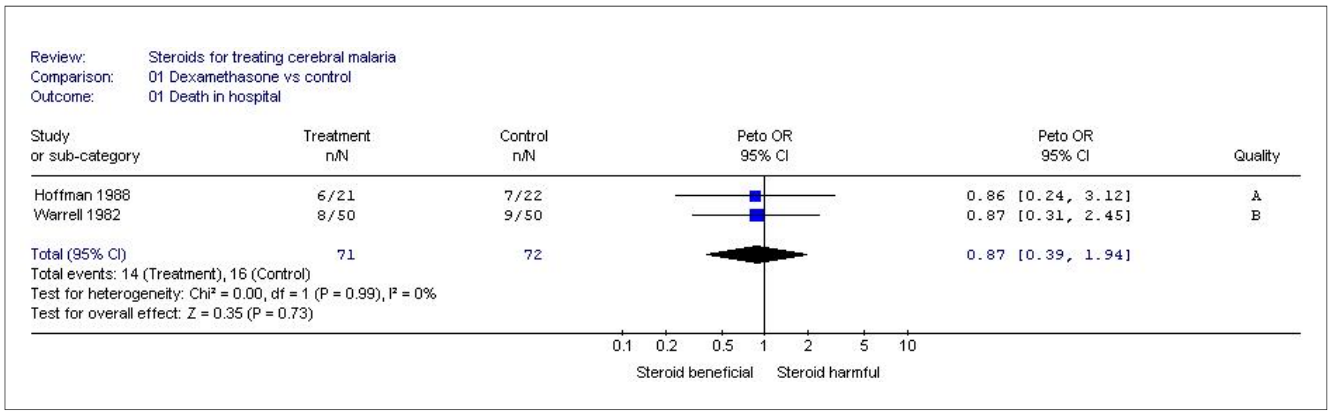

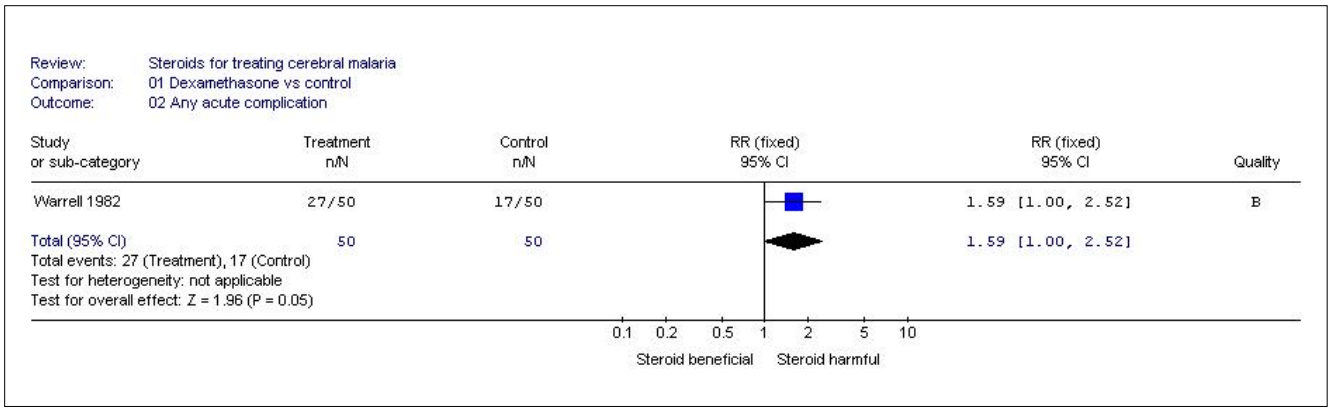

Authors' conclusions

Implications for practice:

There is insufficient evidence to support the use of corticosteroids in routine practice for cerebral malaria.

Implications for research:

The trials included so far did not have sufficient statistical power to exclude a clinically worthwhile effect, but whether further trials are worthwhile is debated.