Study of adults with relapsing and steroid-dependent minimal change disease, comparing the effectiveness of prednisolone 0.5 mg/kg to standard dose prednisolone 1 mg/kg in the treatment of relapses

Author: Megan Fahy

Aims

The purpose of this study is to identify if 0.5 mg/kg daily prednisolone is equivalent to 1 mg/kg daily prednisolone in the induction of remission in adults who have experienced a relapse, and if this impacts on future episodes of relapses and overall steroid burden.

Methods

Patients included were those treated over the past 10 years with biopsy-confirmed minimal change disease (MCD). Inclusion criteria consisted of being >18 years and experiencing relapsing or steroid-dependent disease. Data was collected retrospectively from electronic records, and included episodes of relapse, treatment regime initiated (0.5 mg/kg or standard dose 1 mg/kg prednisolone), time to remission, frequency of relapses, total prednisolone dose and renal function.

Results

Thirty-two patients were identified as having relapsing or steroid-dependent MCD, 16 of which had received low dose prednisolone (0.5 mg/kg) for treatment of a relapse and 16 who received standard (1 mg/kg) treatment.

The mean time to induction of remission following a relapse with 0.5 mg/kg prednisolone was 35.0 days, versus 47.86 days in the 1 mg/kg prednisolone group (95% confidence interval (CI) 27.74 to 57.74; p=0.61). Mean time to next relapse, 242.11 days in the 0.5 mg/kg group, versus 388.93 days in the 1 mg/kg group (95% CI, 175.51 to 455.52; p=0.36). Analysis of the frequent relapsing group alone showed a mean time to remission in the 0.5 mg/kg group of 26.83 days, versus 21.23 days in the 1 mg/kg group (95% CI, 18.53 to 29.53; p=0.26). Total steroid burden in the 0.5 mg/kg group was 16,611 mg versus 13,516 mg in the 1 mg/kg group.

Conclusion

There appears to be no statistically significant difference in the time to remission or time to next relapse between the groups, indicating that use of lower dose corticosteroids in certain patients may be non-inferior. Interestingly overall reduction in steroid burden has not been identified in those treated with the lower dose prednisolone regime. ■

Conflict of interest statement

No conflicts of interest.

Author: Royal Berkshire Hospital Trust, Reading, UK