Chloroquine Phosphate Reduces the Frequency of Muscle Cramps during Maintenance Hemodialysis

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Dear Sir,

Muscle cramps are one of the most common complication during maintenance hemodialysis. We tried to prevent therapy-resistant painful muscle cramps by administering chloroquine phosphate, a drug shown to have depressive effect on neuromuscular transmission [1,

2].

8 patients who had very frequent muscle cramps during hemodialysis were included in the study. Before therapy 160 hemodialyses were complicated by painful muscle cramps. Thereafter chloroquine phosphate was administered to the patients. The drug was given orally at a dose of 250 mg/day for the first 10 days and 2 h before every dialysis thereafter. 72 of the next 160 hemodialyses were without cramps and the other 88 therapies were complicated by milder cramps compared to the pretreatment period.

The drug did not cause any significant changes of the serum levels of blood urea nitrogen, sodium, potassium, chloride, calcium, phosphorus and serum osmolality, hence the beneficial effect was attributed to the blocking effect on neuromuscular transmission.

An interesting observation was that paresthesias of 2 patients, which were related to uremic polyneuropathy,

soon disappeared after administration of the drug. This effect may well be related to the depression of neuromuscular transmission, if it is not a coincidental finding.

None of the side effects reported with this drug was observed during the study.

We conclude that chloroquine phosphate is a safe and effective agent in preventing painful muscle cramps of hemodialysis.

References

Ayitey-Smith E, Vartanian GA: Dual action of chloroquine on frog's skeletal muscle contraction. Eur J Pharmacol 1975; 30:29–35.