Aminaphtone in idiopathic cyclic oedema syndrome

J M Pereira de Godoy
Medical School in São José do Rio Preto (FAMERP) (Researcher for the National Counsel of Technological and Scientific Development [CNPq]), São José do Rio Preto-Sao Paulo, Brazil

Abstract
Objectives: Idiopathic cyclic oedema syndrome is a group of clinical conditions that exhibit a vascular capillary hyperpermeability accompanied by oedema caused by the interstitial retention of fluid. The objective of the current study was to evaluate the efficacy of aminaphtone in the treatment of idiopathic cyclic oedema.
Methods: A total of 15 female patients with clinical diagnosis of idiopathic cyclic oedema and aged between 22 and 49 years and a mean of 37.7 years were evaluated. After diagnosis, the patients were submitted to lower limb volumetry and asked to record the weight in the morning and evening at fixed times. One tablet of aminaphtone was prescribed every 8h and on the fifth day the patients were reassessed. Percentages and the paired t-test were utilized for statistical analysis, with an alpha error of 5% considered acceptable ($P$ value $<0.05$).
Results: A significant reduction in limb size was detected after treatment using aminaphtone ($P$ value $<0.0001$) with losses between 9 g and 370 g, and an average loss of 116.9 g. Variations in weights in the morning and evening were significant ($P$ value $<0.00001$) with a maximum difference of 3 kg and a minimum of 120 g. Improvements were reported for 70% of patients.
Conclusion: Aminaphtone is efficacious in the reduction of oedema in patients with idiopathic cyclic oedema.

Keywords: idiopathic cyclic oedema; aminaphtone; treatment; oedema

Introduction
Idiopathic cyclic oedema syndrome was identified in 1955 by Mach and is a group of clinical conditions that exhibit a vascular capillary hyperpermeability accompanied by oedema caused by interstitial retention of fluid.1
Excessive weight gain can occur in this disease of unknown aetiology, however, there are hypotheses that hyperaldosteronism, primary abnormalities of the hypothalamus, dopaminergic activity and capillary sphincter control may contribute in some patients.2,3 This is a self-limiting benign disorder, which more commonly affects women and it is characterized by great variations in body weight during the same day. It is seen in women during their fertile period of life, with oedema of the legs and ankles and occasionally the eyelids, face and abdomen.4,5 There are few published studies reporting this disease.

The objective of the current study was to evaluate the efficacy of aminaphtone in the treatment of idiopathic cyclic oedema syndrome.

Method
A total of 15 women complaining of oedema involving the face and upper and lower limbs or generalized oedema with clinical diagnosis of idiopathic cyclic oedema were included in this study. Their ages varied between 22 and 49 years with a mean of 37.7 years. Clinical diagnosis was characterized...
by oedema of the face and hands on waking up in the morning that improved during the day, with oedema of the lower limbs gradually appearing as the day progressed. Confirmation of oedema was based on the simplicity or difficulty of removing rings from the fingers in the morning on waking up and weight variations of more than 800 g between morning and evening. Patients with a history of acute oedema associated to medications or not were excluded as were patients with infections and those using hormones.

After diagnosis, the patients were submitted to lower limb volumetry of both legs by water displacement from the knees down using a single standard apparatus and they were prescribed one tablet of aminaphtone every 8 h. On the fifth day the women were clinically reassessed using volumetry, again measuring the volume below the knees to assess the weight changes during the day.

Changes greater than 50 mL were considered significant. The patients were asked to observe the changes related to the difficulty of removing rings in the morning, swelling of the face and limbs and pain in the morning and evening. Percentages and the paired t-test were employed for statistical analysis with an alpha error of 5% considered acceptable (P value <0.05).

**Results**

Significant reductions in the oedema were detected after initiating the treatment using aminaphtone (P value <0.0001). The mean weight loss was 116.9 g with a minimum loss of 9 g and a maximum of 370 g. The weight variations were significant (P value <0.00001), with a maximum difference between morning and evening of 3 kg and a minimum of 120 g. Improvements were reported by 70% of the patients.

**Discussion**

The current study shows that aminaphtone is efficacious to control oedema in patients with diagnosis of cyclic oedema. Diagnosis of cyclic oedema is clinical as there are no recognized laboratorial markers used in the daily routine. The utilization and evaluation of signs, such as the difficulty of removing rings, emerged from complaints by these patients and these signs improving with treatment. In cyclic oedema, it is not always the oedema that is evident as it affects the entire body, so assessing limbs facilitates detection. The utilization of volumetry is considered as the gold standard in the evaluation of oedema of the lower limbs. The difference in weight over the day is another notable complaint of patients as often their pants become tighter towards the end the day. Another complaint is intolerance to the use of elastic stockings as rarely this treatment prevents the oedema. Control of oedema with treatment helps patients to comply with the use of stockings, when indicated.

With respect to treatment, it is seen that the dose is dependent on the intensity of the reduction of oedema. One patient, taking a single tablet of aminaphtone, presented with weight differences between the morning and evening of around 2 kg. After the dose was increased to two tablets per day, the difference was reduced to 800 g. Later, the dose was increased again to three tablets per day and the difference reduced even further, to less than 500 g/day. Clinical control of oedema was noted in about 70% of the patients. Studies show that in around 30% of patients there is the necessity of associating other drugs and even so, for about 10%, control of the oedema is unsatisfactory.

There are very few reports on the clinical approach to this disease. However, around 6–8% of women suffer from this type of oedema during their fertile period of life, which may lead to distress. Even though this is a benign condition, it becomes a concern due to the scarcity of information available and the difficulty that these women face in its treatment. Another aspect to be remembered is the necessity to continuously take the medicine for 3–6 months as the disease may relapse in some patients after short periods of treatment.

**Conclusion**

Aminaphtone is efficacious to reduce oedema in patients suffering form idiopathic cyclic oedema.

**References**