

# The Use of Aminaphtone in Idiopathic Cyclic Edema Syndrome

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## **Abstract**

Idiopathic cyclic edema syndrome is a group of clinical conditions that exhibit vascular capillary hyperpermeability accompanied by edema caused by interstitial retention of fluid. The objective of the present study was to evaluate the effect of aminaphtone on the clinical symptoms of patients suffering from cyclic edema.

Forty-four women, who presented with idiopathic cyclic edema from 2002 to 2004, were evaluated in a prospective randomized study. Their ages ranged between 20 and 54 years old with a mean of 35 years. Inclusion criteria were a history of edema of the face or hands in the morning, often seen by difficulty in removing rings from fingers in the early morning, which normalized as the day progressed. However, edema of the lower limbs also appeared later in the day. The physical examination in these cases demonstrated the presence of edema and patients reported pain and a sensation of heaviness of the lower limbs. Exclusion criteria of patients from the study were the presence of edema isolated in specific limbs and age greater than 50 years old. Treatment comprised of 75 mg of aminaphtone three times daily. The patients were reassessed three to five days after the beginning of treatment. The patients were requested to report the presence of edema and other symptoms and to classify the improvement as good, regular or none.

The study showed that 29 (65.9%) patients reported a good clinical improvement, 11 (25%) partial improvement and four (9.09%) patients did not notice any improvement.

In conclusion, aminaphtone may provide a clinical improvement for patients suffering from idiopathic cyclic edema.

*Key words:* Aminaphtone, idiopathic cyclic edema, treatment, edema

## Introduction

Idiopathic cyclic edema syndrome, which was identified in 1955 by Mach, is a group of clinical conditions that exhibit vascular capillary hyperpermeability accompanied by edema caused by interstitial retention of fluid <sup>(1)</sup>.

It is known that this syndrome can lead to excessive weight gain even though its cause remains unknown, hypotheses such as secondary to hyperaldosteronism, primary abnormalities of hypothalamus, dopaminergic activity and control of the capillary sphincter may contribute in some patients <sup>(2,3)</sup>. This is a benign self-limiting disorder, which mostly effects women and is characterized by great variations in the body weight on one single day <sup>(4,5)</sup>. It is observed in women during child-bearing age as edema of the legs and ankles and sometimes the eyelids, face and trunk<sup>(4,5)</sup>. A study in India assessed idiopathic edema and detected that 93.1% of the patients were women and it was associated with psychological symptoms, obesity and diuretic drug abuse in 86.2%, 48.3% and 41.4% of the cases respectively <sup>(6)</sup>. However there are few publications that evaluate this disease.

The aim of this study was to evaluate the effect of aminaphtone on the clinical evolution of patients suffering from Idiopathic cyclic edema syndrome.

## Method

Forty-four women, who suffered from idiopathic cyclic edema syndrome, were studied in a random prospective study in the period from 2002 to 2004. This syndrome was characterized by a history of morning edema of the hands, identified by difficulty to remove rings in the morning, and/or face. As the day progressed, this edema disappeared however, edema of the lower limbs evolved. In the physical examination the presence of edema, pain and a sensation of weight of the legs were reported. The exclusion criteria of patients from the study included the existence of isolated edema of limbs and age greater than 50 years.

The patients were requested to observe the presence of edema, of the symptoms and they were weighed, both in the morning and at night, for three consecutive days. After this evaluation, those who had a variation of more than 800 grams during a single day and confirmed edema of the fingers in the morning were included in the treatment program. These patients received 75 mg of aminaphtone three times daily and were requested to observe any changes that occurred with the treatment, in particular in respect to the difficulties to remove rings in the morning and the weight gain during the day. They were reassessed four to seven days after starting treatment and interviewed about the signs and symptoms.

## Results

Twenty-nine of the patients (65.9%) reported a great clinical improvement, 11 (25%) reported a partial improvement and 4 (9.09%) did not report any changes. The weight gain seen during the progression of the day was reduced with the medication.

## **Discussion**

The current study evaluated the effect of aminaphtone on the edema and symptoms experienced by women suffering from idiopathic cyclic edema syndrome. Edema of the face and hands in the morning, the improvement of this during the day and the development of edema of the legs reflect the effects of gravitational pressure on the movement of fluids. The evaluation of difficulty to remove rings was a practical method of measuring the edema of the fingers. Inclusion of edema that involves the face and/or the hands and which moves to the legs over the day, removes the possibility that the edema originates in the venous system. Hypoproteinaemia, nephropathy and heart disease were not believed to be probable causes of the edema, even though the disease occurs in young women. The differences in the weight in some patients were evaluated but not in all due to the problems some had to weigh themselves early in the morning and late at night. Even so variations of 800 to 1500 grams were recorded. These differences were reduced or even eliminated using the medication. Some patients had had edema for more than 15 years and although they tried to find treatment they were unsuccessful. One patient lost 12 kilograms in one week after starting treatment. These data reflect the difficulties to diagnose and the lack of understanding of this disease which affects from 5 to 10% of women during child-bearing ages. Some of the individuals in this study had been submitted to varicose vein surgery but did not improve and the surgery even aggravated the symptoms. Thus, idiopathic cyclic edema syndrome should be investigated in patients before any procedure is undertaken. The improvement in the edema may solve the symptoms, at least in part. Three patients presented with cephalaea during the early morning, which improved two or three hours after getting up, reflecting brain edema which can occur in this disease. The treatment interferes with the capillary permeability giving improvement in the signs and symptoms. The length of treatment of the patients in this study was on average 103 days, with some ceasing treatment after the first box of tablets as they were feeling better but needed to restart as the symptoms returned. Data over the long term (years) are still unavailable due to the short time of follow up, although some patients improve and no longer require medicine, others needed to return to treatment after ceasing for a period.

Patients who did not have a good response with 75 mg aminaphtone three times per day started to take the medicine four times when some responded and others did not. In the cases that did not have an improvement after increasing the dose, an association with 80 to 120 mg of gingo biloba was initiated. Both aminaphtone and gingo biloba proved to be independent doses. The use of hormones seems to negatively interfere in the treatment although further studies are necessary to prove this.

In relation to the laboratory diagnoses such as the Lands test to evaluate capillary permeability, which used marked albumin, was used in the past but now is used little. All the examinations are normal with idiopathic cyclic edema syndrome and in the current study many of these patients underwent several clinical and laboratorial evaluations without this disease being remembered. Diuretics should not be prescribed as they aggravate the electro-

lytic alterations. First alterations in the capillary system should be corrected as this improves the clinical symptoms. Lymph drainage at this stage is also not advisable, even though three patients already presented with clinical signs of involvement of the lymphatic system with edema of the feet. After improvement alterations in the capillary system, lymph drainage was associated with the treatment which improved the edema over a short period of time.

## Conclusion

In conclusion, aminaphtone can improve the clinical symptoms of idiopathic cyclic edema syndrome.

## References

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