Ibopamine in Idiopathic Edema

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Dear Sir,

Decreased dopaminergic activity has been suggested in the multifactorial pathogenesis of idiopathic edema [1], and treatment with dopaminergic agonists has been proposed [2]. We have recently had the opportunity of testing this possibility by administering ibopamine, an oral analogue of dopamine, to a patient who presented this syndrome.

A 51-year-old (postmenopausal) woman was referred to our department complaining of weight gain and swelling occurring in a diurnal pattern. Other edema-forming states excluded, the diagnosis of idiopathic edema was made and treatment with ibopamine was planned upon informed consent. Our study design called for giving placebo for 4 weeks and ibopamine thereafter. The drug was administered in the initial dose of 50 mg daily. If no therapeutic response was obtained, the dose was increased at 4-week intervals by doubling at each increment until the maximum dose of 200 mg was achieved. The patient was asked to maintain her customary diet and way of life throughout. The day

before starting the study and then every 7th day, the diurnal (8 a.m.-8 p.m.) weight gain was recorded and urine collections of 12-hour duration (i.e., 8 a.m.-8 p.m. and 8 p.m.-8 a.m.) were obtained to measure sodium and water excretion. These measurements were made after the patient had remained 'up and about' from morning to evening and was asked not to lie down. A careful clinical evaluation was carried out at each weekly outpatient visit.

As shown in table 1, ibopamine 100 mg/day produced some variations in the diurnal weight gain and in the pattern of diuresis and natriuresis, but no definite clinical improvement could be achieved. These observations would imply that a decrease, if any, in the dopaminergic tone has only a minor contributing role in determining the postural sodium and water retention in this patient. In our opinion, however, ibopamine, in view of its renal effects [3, 4], may contribute to treating this difficult syndrome, possibly in association with ACE-inhibition that remains, we think [5], the most rational therapeutic approach.

References

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100

1.53(1.3-1.7)

Table 1. Effect of ibopamine on morning-to-evening weight difference (MEWD), diuresis and natriuresis

MEWD, kg Urine volume, ml

Diurnal

Nocturnal Urine sodium, mEq

Diurnal

Nocturnal

Placebo

1.94(1.75-2.25)

628(550-710) 1,020(930-1,180)

59(46-70) 91 (71-109)

Ibopamine, mg/day

50

1.81(1.65-2.0)

661 (610-700) 1047(900-1,150)

64 (53-75) 87(69-105)

200

1.84(1.3-2.35)

817 (800-850) 703 (640-760)

989 (950-1,030) 1,056 (870-1,260)

77 (65-87) 94(74-138)

98(87-107) 79(65-81)

Each value is the mean of 4 weekly determinations obtained during each period of the study.

Figures in brackets represent the range.

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