daily with fractional collections made for the 0–4 hr, 4–8 hr, and 8–24 hr periods at baseline and on Days 1, 8, and 15. On days 2 and 3 of the treatment phase, the cumulative net Na excretion was greater for T80 (mean ± SE, 85.3 ± 20.7 and 96.7 ± 27.4 mmol, respectively) than for P (12.6 ± 20.7, p = 0.02 and 18.1 ± 27.4, p = 0.05) or for T40 (20.2 ± 19.5, p = 0.03 and 16.7 ± 25.8, p = 0.05). Although the daily cumulative net Na excretion was not significantly different among treatments beyond Day 3, on Day 8 the 0–4, 4–8, and 8–24 hr rates of Na excretion for T80 (4.2 ± 0.7, 5.9 ± 0.8, and 3.5 ± 0.4 mmol/hr, respectively) compared to P (2.4 ± 0.7, p = 0.08, 3.1 ± 0.8, p = 0.03, and 3.3 ± 0.4, p = 0.80) and to T40 (3.3 ± 0.6, p = 0.37, 3.3 ± 0.8, p = 0.03, and 2.6 ± 0.4, p = 0.14) expressed trends similar to those previously shown on Day 1. These trends were not evident on Day 15. However, through Day 15, a slightly greater total daily Na excretion was seen with T80 than with P. These results demonstrate that in hypertensive patients telmisartan 80 mg possesses a long-term natriuretic effect that is more pronounced in the first few days of treatment but still significantly greater than placebo during the 4–8 hr fraction on Day 8. As well, although diminished, there appears to be some daily effect still present through 15 days of treatment.

Key Words: Telmisartan; renin; sodium; natriuresis; angiotensin receptor blockers

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SALINE INFUSION TEST IN THE DIAGNOSIS OF PRIMARY ALDOSTERONISM
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Although the acute i.v. saline load represent a more practical approach to establish the autonomy of aldosterone secretion, with respect to others suppressive tests (DOCA or fludrocortisone test), it is considered a less reliable test.

We studied the effect of the saline infusion in 30 patients with confirmed primary aldosteronism (PA), 15 with APA and 15 with IHA, compared with 16 essential hypertensives (EH), aged from 30 to 66 years. After overnight recumbency, 2 litres of 0.9 percent saline solution were administered i.v. in 4 hours between 8 a.m. and noon. Blood pressure and heart rate were monitored closely during the test. Plasma renin activity (PRA), plasma aldosterone concentration (PAC) and plasma cortisol were measured before and after the test.

Results. The PAC values at the end of the test were higher in the patients with PA than in those with EH (18.6 ± 12.9 vs 5.7 ± 1.9 ng/dl, p < 0.0001), but no significant difference was observed between the patients with APA and IHA. When a cut-off value of 7.5 ng/dl was chosen, the test gave a value of 86.67% for sensitivity, 88.89% for specificity, 89.66% for positive and 85.71% for negative prediction for PA. In particular, only 3 patients with EH were found to have a value above 7.5 ng/dl, while 4 patients with PA had a PAC below that threshold. To note that all 3 essential hypertensives with abnormal PAC/PRA ratio (in our center >40) showed a PAC lower than 7.0 ng/dl at the end of the saline infusion. Furthermore, despite individual heterogeneity, the patients with APA showed increased mean levels of PAC/cortisol ratio (ng/dl: μg/dl) after the test (especially when PAC was >10 ng/dl), at variance from the findings in IHA. In fact, 7 of 9 cases of APA, which had a PAC value above 10 ng/dl, were found to have a PAC/cortisol ratio higher than 3. Conversely, 7 of 9 patient with IHA had a PAC/cortisol ratio lower than 3. In conclusion, the saline infusion test represents an useful test to confirm the diagnosis of primary aldosteronism, with some more information on the differential diagnosis between APA and IHA, when PAC/cortisol ratio is considered.

Key Words: •••