

INTEREST IN MEASURING ENDOTHELIN
(ET₁) IN CARDIOVASCULAR PATHOLOGY,
HYPERTENSION AND UREMIA.

The aim of the study is to state the interest of arterial and venous measurements of ET₁, a potent vasoconstrictor playing a great role in the genesis of hypertension, either essential or secondary to chronic renal failure. ET₁ is also involved in atherosclerosis, frequently noted in uremia.

Our population includes 30 patients submitted to coronarography for angina, 10 untreated hypertensive patients with a mean systolic diurn blood pressure between 140 and 160 (measured by Spacelab 90207), and 25 hemodialysed uremic patients. ET₁ is dosed with the ET_{1,2} ¹²⁵I assay system (Amersham).

The results are expressed for ET₁ in Fmol/ml (mean, SEM). For the normal control population (10), the venous endothelin concentration was 28 ± 1 , significantly lower than in essential hypertensives (48 ± 1 , $p < 0.05$). According to the arterial dosage, the uremic population presented higher values (53 ± 1 , $p < 0.05$) than the patients undergoing coronarography. The latter indeed showed the following values: 31 ± 3 ; 39 ± 2 and 49 ± 9 ($p < 0.05$ versus normal coronarography) for the patients with normal coronarography (10), mono and bitroncular (10), or tritroncular lesions (10), respectively. But the venous values of this group were not different between each other or compared to the normal control (27 ± 3.3 ; 33 ± 7 and 32 ± 3 , respectively).

Thus, ET₁ appears to be a biological marker of the severity of the arterial disease and especially for the dialysed population. The relationship to high blood pressure warrants further study.

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