# Important Advances in Clinical Medicine

## *Epitomes of Progress -- Pathology*

*The Scientific Board of the California Medical Association presents the following inventory of items of progress in Pathology. Each item, in the judgment of a panel of knowledgeable physicians, has recently become reasonably firmly established, both as to scientific fact and important clinical significance. The items are presented in simple epitome and an authoritative reference, both to the item itself and to the subject as a whole is generally given for those who may be unfamiliar with a particular item. The purpose is to assist the busy practitioner, student, research worker or scholar to stay abreast of these items of progress in Pathology which have recently achieved a substantial degree of authoritative acceptance, whether in his own field of special interest or another.*

*The items of progress listed below were selected by the Advisory Panel to the Section on Pathology of the California Medical Association and the summaries were prepared under its direction.*

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### Aldosterone Levels

The assessment of the renin-angiotensin system is usually accomplished by the measurement of plasma renin activity (PRA) by a variety of techniques. In general, these levels are elevated in secondary hyperaldosteronism. PRA measurements are those most frequently used to (1) support the diagnosis of an aldosterone-producing tumor and (2) the identification of certain types of renovascular hypertension diseases where peripheral levels and measurement of renin concentration in both renal veins will identify an abnormal kidney which may be the causative factor.

PRA levels are quite sensitive to position and sodium intake. Care must be used in the interpretation of PRA in suspects with primary aldosteronism. The PRA may be normal after marked salt restriction and standing. If the stimulus is severe enough, even the suppressed levels in this disorder could become normal. A single peripheral PRA level provides little information, if any. In patients with essential hypertension, 20 to 30 percent may have subnormal levels.

The measurement of bilateral renal vein renin can be most useful in the identification of the abnormal kidney if the ratio (expressed as larger renin value over smaller) is greater than 1.7:1. These measurements may be of use in hypoplastic kidneys, hydronephrosis, and unilateral pyelonephritis. Its usefulness may soon warrant the use of PRA as the next logical procedure after an abnormal intravenous pyelogram.

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REFERENCES

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Haber E: Recent developments in pathophysiologic studies of the renin angiotens in system. New Eng J Med 280:148-155, Jan 16, 1969