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## Microbiological Laboratory



# **METANEPHRINES**

Epinephrine, Nor-epinephrine and Serotonin are biogenic amines that serve as neuronal and hormonal signals in a wide range of physiological processes. Abnormal production of these biogenic amines may occur in a number of neuroendocrine tumors. Pheochromocytoma is one such rare and dangerous tumor that causes hypertension.

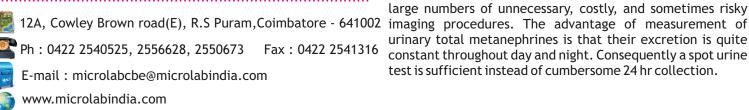
## Pheochromocytoma?

(Do not request for 24hrs VMA Test Demand for Total Metanephrine Test)

#### Advantages :

- More specific and sensitive test than VMA
- No invasive
- No diurnal Variation.
- No need for 24hrs Urine Spot urine will suffice.
- HPLC Method-Method of choice.
- Obtain both Metanephrine and Nor-Metanephrine levels.

### "A sad soul can kill you quicker than a germ"



#### Hypertension?

Since a large number of patients do have hypertension, measurement of biogenic amines or their metabolites aids in tumor detection and monitoring. Left untreated, the symptoms may worsen as the tumor grows and, over a period of time, the hypertension from a pheochromocytoma may cause kidney damage, heart disease, and a raised the risk of a stroke or heart attack.

#### VMA Testing?

Hitherto VMA was the most requested test for detecting pheochromacytoma. Although VMA testing is neither sensitive nor specific the test was requested because of the lack of other sensitive and specific tests. With the advent of HPLC such a need is met with. The major metabolites of Epinephrine and Nor-Epinephrine, namely the Metanephrine and Nor-Metanephrine respectively are the tests of choice for the diagnosis of Pheochromacytomas

#### **Urinary Metanephrines Test?**

Urinary metanephrines test is desirable, as the very low incidence rate of pheochromocytoma will otherwise result in large numbers of unnecessary, costly, and sometimes risky urinary total metanephrines is that their excretion is quite constant throughout day and night. Consequently a spot urine test is sufficient instead of cumbersome 24 hr collection.