METABOLIC SCREEN, COMPREHENSIVE, URINE

(Chemical, Thin Layer Chromatography, One dimensional)

<table>
<thead>
<tr>
<th>Metabolic Screen Basic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reducing Substances</td>
</tr>
<tr>
<td>Ferric Chloride Test</td>
</tr>
<tr>
<td>DNPH Test</td>
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<tr>
<td>Nitrosonaphthol Test</td>
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<tr>
<td>Nitroprusside Test</td>
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<tr>
<td>Silver Nitroprusside Test</td>
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</tbody>
</table>

Amino Acids Qualitative

<table>
<thead>
<tr>
<th>AMINO ACID</th>
<th>RESULT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alanine</td>
<td></td>
</tr>
<tr>
<td>Arginine</td>
<td></td>
</tr>
<tr>
<td>Asparagine</td>
<td></td>
</tr>
<tr>
<td>Aspartic acid</td>
<td></td>
</tr>
<tr>
<td>Beta Aminoisobutyric acid</td>
<td></td>
</tr>
<tr>
<td>Citrulline</td>
<td></td>
</tr>
<tr>
<td>Cystine</td>
<td></td>
</tr>
<tr>
<td>Ethanolamine</td>
<td></td>
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<tr>
<td>Glutamic acid</td>
<td></td>
</tr>
<tr>
<td>Glutamine</td>
<td></td>
</tr>
<tr>
<td>Glycine</td>
<td></td>
</tr>
<tr>
<td>Histidine</td>
<td></td>
</tr>
<tr>
<td>Homocystine</td>
<td></td>
</tr>
<tr>
<td>Hydroxyproline</td>
<td></td>
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<tr>
<td>Isoleucine</td>
<td></td>
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<tr>
<td>Leucine</td>
<td></td>
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<tr>
<td>Lysine</td>
<td></td>
</tr>
<tr>
<td>Methionine</td>
<td></td>
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<tr>
<td>Ornithine</td>
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<tr>
<td>Phenyl alanine</td>
<td></td>
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<tr>
<td>Proline</td>
<td></td>
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<tr>
<td>Serine</td>
<td></td>
</tr>
<tr>
<td>Taurine</td>
<td></td>
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<tr>
<td>Threonine</td>
<td></td>
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<tr>
<td>Tryptophan</td>
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<tr>
<td>Tyrosine</td>
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<tr>
<td>Valine</td>
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</tbody>
</table>

Note: 1. Results should be interpreted in the context of clinical findings, family history & other laboratory data
2. False positivity seen due to the presence of Homogentisic acid, Phenothiazines & Acetoaminophen. False negativity may occur if the specimen shows bacterial contamination.

3. Positive results are suggestive of Inborn Errors of Metabolism, but requires followup with quantitative testing.

4. Genetic counseling available with prior appointment at Department of Genetics, National Reference Lab, New Delhi.

Comments
Amino Acids are basic structural units that comprise proteins and are found throughout the body. Amino acid disorders are caused by impaired metabolism or transport of proteins and amino acids which results in accumulation or deficiency of one or more amino acids in biological fluids. Inborn errors of amino acid metabolism usually manifest in infancy & childhood. Affected patients may have failure to thrive, neurological symptoms, digestive problems, locomotor retardation, developmental delays & mental retardation. As essential amino acids are obtained through an individual's diet, treatment for amino acid disorders involves very specific dietary modifications which have to be very closely monitored by periodic amino acid analysis.

Impression

Advised