List of figures

2.1. Map of India, prevalence of T2DM \hspace{1.5cm} 19
2.2. Prevalence of GDM by BMI \hspace{1.5cm} 20
2.3. Prevalence of GDM by gravidity \hspace{1.5cm} 21
2.4. Conceptual model for GDM \hspace{1.5cm} 22
2.5. Disorders of glycemia, etiology, type and stages \hspace{1.5cm} 25
2.6. Diagnostic criteria for OGTT \hspace{1.5cm} 32
2.7. Screening for and diagnosis of GDM \hspace{1.5cm} 34
2.8. Baker's hypothesis \hspace{1.5cm} 48
2.9. Weight gain distribution during pregnancy in Kg \hspace{1.5cm} 52
2.10. Potential long range effects upon the fetus of chronic alterations in concentration of maternal fuel during pregnancy \hspace{1.5cm} 55
2.11. Major metabolic alterations in diabetes \hspace{1.5cm} 58
2.12. Normal hormonal regulations of blood glucose \hspace{1.5cm} 60
2.13. Oxidative stress \hspace{1.5cm} 76
2.14. Factors which determine the body pool size of a vitamin \hspace{1.5cm} 82
3.1. Variable of study and distracting factors \hspace{1.5cm} 97
3.2. Plasma ascorbic acid analysis steps \hspace{1.5cm} 106
3.3. Histogram of dietary vitamin C, before and after transformation \hspace{1.5cm} 117
3.4. Histogram of 1 hour PP before and after logarithm transformation \hspace{1.5cm} 117
4.1. Flow diagram of selection of subjects \hspace{1.5cm} 121
4.2. Comparison of macronutrient intake per day in GDM and NGT mothers \hspace{1.5cm} 127
4.3. Comparison of micronutrient intake per day in GDM and NGT mothers \hspace{1.5cm} 130
4.4. Cumulative frequency curve, of vitamin C intake in GDM and NGT mothers \hspace{1.5cm} 130
4.5. Correlation of dietary intake and plasma concentrations of vitamin C in total population \hspace{1.5cm} 135
8.1.1. Gestational age score \hspace{1.5cm} 234
8.1.2. Intra-uterine weight for gestation chart \hspace{1.5cm} 235
8.1.3. Neonatal gestational age, physical maturity (Ballard chart) \hspace{1.5cm} 236
8.1.4. Neonatal gestational age, neuromuscular assessment (Ballard chart) \hspace{1.5cm} 240
8.2.1. T2DM algorithm \hspace{1.5cm} 242
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.2.2. Relationship between maternal and fetal nutrition</td>
<td>244</td>
</tr>
<tr>
<td>8.2.3. Pre-pregnancy weight gain graph</td>
<td>246</td>
</tr>
<tr>
<td>8.2.4. Schematic illustration of vitamin C uptake and recycling in the cell</td>
<td>246</td>
</tr>
<tr>
<td>8.2.5. A cartoon illustrating hormonal action on blood glucose regulation</td>
<td>247</td>
</tr>
<tr>
<td>8.2.6. Stages of the nutrition transition</td>
<td>247</td>
</tr>
<tr>
<td>8.2.7. Transcending reductionism in nutrition research</td>
<td>248</td>
</tr>
</tbody>
</table>