ABSTRACT
Diabetes mellitus is a metabolic disease which is characterized by hyperglycaemia, hyper aminoacidemia and hypoinsulinemia this leads to decrease in insulin secretion and insulin action. Diabetes mellitus were described 3000 years ago by the ancient Egyptians. Oral hypoglycemic agents are used to treat diabetes mellitus and also some of the traditional medicines are used as an alternative to treat diabetes mellitus. The modern era in the history of diabetes mellitus is rediscovered by Thomas Willis in1675 of sweetness urine of the diabetic patients. In 1946, Loubatieres demonstrated experimentally that the sulphonamides group was responsible for the hypoglycemic action.

KEYWORDS: Diabetes, History.

History
Diabetes mellitus is a chronic metabolic disorder occurs due to the presence of high concentration of glucose in the blood and also due to increase or decrease in the production of the insulin in the pancreas. Diabetes mellitus has been considered as one of the major health concerns all around the world. Diabetes mellitus is characterized by hyperglycaemia, hyper aminoacidemia and hypoinsulinenia. Diabetes is the dreadful disease and also one of the most leading disorder, it may increase the secondary applications which may affecting the eye, kidney and nerves. Oral hypoglycemic agents are used to treat diabetes mellitus and these agents may cause undesirable side effects. Some of the traditional medicines are used as an alternative to treat diabetes mellitus. Clinical features similar to diabetes mellitus were described 3000 years ago by the ancient Egyptians. The term “diabetes” was first introduced by Aeraetus of Cappadocia (81-133AD). Later the word “mellitus” (honey sweet) was added by Thomas Willis in 1965. Diabetes mellitus is a disease, for example a constellation of symptoms, but not its pathogenesis. It has been known by physicians for nearly 3,500 years in ancient Egypt. The papyrus contains information of various diseases; among them is a polyuric syndrome, probably diabetes. The Egyptians proposed various remedies to this syndrome. The Indians identifies the relation of diabetes to heredity, obesity and diet. They suggested freshly harvested cereals and bituminous preparations containing benzoates and silica as a remedy for diabetes. Aeraetus said “Diabetes is a wonderful affection being a melting down of the flesh and limbs into urine. The patient never stops drinking water but the flow is incessant as if from the opening of aqueducts. The patient is short lived.”

Diabetes in modern times
The history of diabetes mellitus in the modern time is coincided with the establishment of experimental foundation of modern medicine. Two prominent measurements in the history of medicine paved the way towards understanding the pathogenesis of Diabetes. The first one was the application of chemistry as a diagnostic tool in the second half of the 18th century. The other one was the emergence of endocrinology as a formal discipline with the works of Claude Bernard (1813-1878) and Brown-Sequard (1817-1894). Bernard established the concept of organs of internal secretions. The modern era in the history of diabetes mellitus is rediscovered by Thomas Willis in1675 of sweetness urine of the diabetic patients. Four years later, Frank classified the disease, on the basis of presence sugar like substance into diabetes insipdus (tasteless urine) and diabetes Vera (sweet urine). In 1776, Liverpool physician confirmed the presence of sugar in both urine and blood. In 1798, John Rollo, a French phycian, misguidedly concluded that diabetes was a disease of the stomach as a result of abnormal transformation of vegetable nutrients into sugar.

Oral hypoglycemic drugs
Oral hypoglycemic drugs are the agents which are used to treat diabetes mellitus. In 1930, the hypoglycemic effect of sulphonamides was firstly detected. Professor M. J. Janbon noticed that the substance testing on animals could cause severe hypoglycemia.
Loubatieres demonstrated experimentally that the sulphonamides group was responsible for the hypoglycemic action. In 1950, Metformin and Phenformin were developed from the active ingredient of Galega officinalis. Phenformin was withdrawn from the market in the early 1970 as the high frequency of lactic acidosis resulted from its use.

CLASSIFICATION
1. Sulfonyl ureas
   - First generation drugs: Tolbutamide, Chlorpropamide
   - Second generation drugs: Glipizide, Glibenclamide

2. Meglitinides
   Repaglinide, Nateglinide

3. Biguanides
   Metformin, Phenformin

4. Thiazolidinedione’s
   Rosiglitazone

5. α – glucosidase inhibitors
   Acarbose, Miglitol

Mechanisms action of Sulfonyl ureas
Sulfonylureas reduce the blood glucose level by:
- Stimulating the release of insulin from the pancreatic β cells.
- Increasing the sensitivity of peripheral tissues to insulin.
- Increasing the number of insulin receptors.
- Suppressing hepatic gluconeogenesis.

Mechanism action of Meglitinides
Meglitinides enhance the release of insulin by blocking the ATP-dependent K+ channels in the pancreatic β cells.

Mechanism action of Biguanides
- Suppress hepatic gluconeogenesis.
- Inhibit glucose absorption from the intestines.
- Stimulate glycolysis in the tissues.
- Reduce plasma glucagon levels.

Mechanism action of Thiazolidinedione’s
TZDs activate the PPAR-gamma receptors and modulate the expression of insulin-sensitive genes, i.e. they induce the synthesis of genes which enhance insulin action.

Mechanism action of α-glucosidase inhibitors
α-glucosidase inhibitors inhibit α-glucosidase in intestinal brush border this prevents the absorption and delay digestion of carbohydrates and reduce the postprandial blood sugar.

Some of the Medicinal plants used for the treatment of diabetes mellitus

<table>
<thead>
<tr>
<th>Sl.No</th>
<th>Botanical Name</th>
<th>Common Name</th>
<th>Family</th>
<th>Parts used</th>
<th>Activity</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>Abrama augusta</td>
<td>Devil’s cotton</td>
<td>Sterculiaceae</td>
<td>Stem &amp; Bark</td>
<td>Anti-diabetic</td>
<td>15</td>
</tr>
<tr>
<td>02</td>
<td>Abrus precatorius L</td>
<td>Kundumani</td>
<td>Fabaceae</td>
<td>Leaves</td>
<td>Anti-diabetic</td>
<td>16</td>
</tr>
<tr>
<td>03</td>
<td>Albizia odoratissima</td>
<td>Black siris</td>
<td>Mimosaceae</td>
<td>Bark</td>
<td>Anti-diabetic</td>
<td>17</td>
</tr>
<tr>
<td>04</td>
<td>Bougainvillea Glabra</td>
<td>Paper flower</td>
<td>Nyctanginaceae</td>
<td>Leaves</td>
<td>Anti-diabetic</td>
<td>18</td>
</tr>
<tr>
<td>05</td>
<td>Bryonia alba</td>
<td>White bryony</td>
<td>Curcurbitaceae</td>
<td>Roots</td>
<td>Anti-diabetic</td>
<td>19</td>
</tr>
<tr>
<td>06</td>
<td>Caesalpinia digyna</td>
<td>Vakery mool</td>
<td>Fabaceae</td>
<td>Root</td>
<td>Anti-diabetic</td>
<td>20</td>
</tr>
<tr>
<td>07</td>
<td>Cajanus cajan</td>
<td>Pigeon pea</td>
<td>Fabaceae</td>
<td>Leaves</td>
<td>Anti-diabetic</td>
<td>21</td>
</tr>
<tr>
<td>08</td>
<td>Cebapentandra</td>
<td>Silk cotton tree</td>
<td>Bombaceae</td>
<td>Roots &amp; Bark</td>
<td>Anti-diabetic</td>
<td>22</td>
</tr>
<tr>
<td>09</td>
<td>Prospis glandulosa</td>
<td>Honey mesquite</td>
<td>Fabaceae</td>
<td>Whole plant</td>
<td>Anti-diabetic</td>
<td>23</td>
</tr>
<tr>
<td>10</td>
<td>Punica granatum</td>
<td>Pomegranate Anar</td>
<td>Punicaceae</td>
<td>Flower</td>
<td>Anti-diabetic</td>
<td>24</td>
</tr>
<tr>
<td>11</td>
<td>Tinospora cordifolia</td>
<td>Guduchi, giloy</td>
<td>Menispermaceae</td>
<td>Root</td>
<td>Anti-diabetic</td>
<td>25</td>
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<tr>
<td>12</td>
<td>Semecarpus anacardium</td>
<td>Bhilawa</td>
<td>Anacardiaceae</td>
<td>Nut</td>
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<td>13</td>
<td>Symplacos cochinensis</td>
<td>Kambī-vetti</td>
<td>Symplocaceae</td>
<td>Leaves</td>
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<td>14</td>
<td>Syzygium cumini</td>
<td>Jamun , Jambul</td>
<td>Myrtaceae</td>
<td>Seeds</td>
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<tr>
<td>15</td>
<td>Vitis vinifera</td>
<td>Woody vine</td>
<td>Vitaceae</td>
<td>Leaves</td>
<td>Anti-diabetic</td>
<td>29</td>
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<tr>
<td>16</td>
<td>Aconitum Palmatum</td>
<td>Aconitae</td>
<td>Raunculaceae</td>
<td>Stem &amp; Bark</td>
<td>Anti-diabetic</td>
<td>15</td>
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<tr>
<td>17</td>
<td>Abutilon indicum</td>
<td>Thihi</td>
<td>Malvaceae</td>
<td>Stem &amp; Bark</td>
<td>Anti-diabetic</td>
<td>15</td>
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<tr>
<td>18</td>
<td>Trigonella foenum-graceum</td>
<td>Fenguugreek</td>
<td>Fabaceae</td>
<td>Seed</td>
<td>Anti-diabetic</td>
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<tr>
<td>19</td>
<td>Wattakaka volubilis</td>
<td>Perub – kurinjan</td>
<td>Asclepiadaceae</td>
<td>Leaves</td>
<td>Anti-diabetic</td>
<td>25</td>
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<tr>
<td>20</td>
<td>Picrorhiza kurrooa</td>
<td>Kutki</td>
<td>Scrophulariaceae</td>
<td>Rhizome</td>
<td>Anti-diabetic</td>
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<tr>
<td>21</td>
<td>Potentilla fulgens</td>
<td>Cinquefoils</td>
<td>Rosaceae</td>
<td>Root</td>
<td>Anti-diabetic</td>
<td>15</td>
</tr>
<tr>
<td>22</td>
<td>Campylandra Aurantiaca</td>
<td>Nakima</td>
<td>Liliaceae</td>
<td>Flower</td>
<td>Anti-diabetic</td>
<td>15</td>
</tr>
</tbody>
</table>

CONCLUSION
Diabetes mellitus is a chronic metabolic disorder occurs due to the presence of high concentration of glucose in the blood. Diabetes is the dreadful disease and also one of the most leading disorders; it may increase the secondary applications. The history of diabetes mellitus in the modern time is coincided with the establishment of experimental foundation of modern medicine. In 1776, Liverpool physician confirmed the presence of sugar in both urine and blood. The Indians identifies the relation...
of diabetes to heredity, obesity and diet. They suggested freshly harvested cereals and bituminous preparations containing benzoates and silica as a remedy for diabetes. Oral hypoglycemic agents are used to treat diabetes mellitus. Sulfonylureas reduce the blood glucose level by stimulating the release of insulin from the pancreatic β cells. Meglitinides enhance the release of insulin by blocking the ATP-dependent K⁺ channels in the pancreatic β cells.

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