Importance Of Milk In Siddha Medical Practice

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**Abstract**

Siddha, the age old medical science has medicines prepared out of living things. Among them milk and milk products are distinguished one, which plays a role in pharmaceutical formulations and itself as a medicine. There are many varieties of milk from mammals including species have been described for alleviating diseases and disorders through ratio of dilution and choosing the vessels for boiling etc. The characteristics of certain mammal's milk like cow, goat, donkey, camel and buffalo were analyzed with special reference to Siddha literatures and evidence based scientific data.

**Introduction**

Milk is a white liquid produced by the mammary glands of mammals. It is the primary source of nutrition for young mammals before they are able to digest other types of food. Early-lactation milk contains colostrum, which carries the mother's antibodies to the baby and can reduce the risk of many diseases in the baby. In almost all mammals, milk is fed to infants through breastfeeding, either directly or by expressing the milk to be stored and consumed later. Humans are an exception in the world for consuming milk past infancy from other animals. We depend on many animals for milk not merely for nutrition also for their medicinal values in ailing the illness. In Siddha medical practice traditional usage of various milk and milk products are documented thousands of years before and ‘n’ numbers of researches are done nowadays which prove the facts said in age old science.

**Milk and milk products in Siddha Medicine**

The animal and human’s milk contributed significantly in Siddha medical practice. Milk plays a key role in some of the medicines as ingredients and some in as Anupanam (vehicle). Even milk itself is used as medicine which is said as Tharoshana sikitchai. They are cow’s milk, buffalo’s milk, goat’s milk, elephant’s milk, Horse’s milk, Camel’s milk and Human’s milk. The ancient literature even reveals how to dilute the concentrated milk in a proportionate ratio. The milk and milk products handling in Siddha system are milk, curd, buttermilk, butter, ghee and cheese. The uniqueness stands behinds these products to various illnesses are based on the Pancha bootham (five elements) concepts – earth, water, fire, air, and space) Table.1. There is an interesting method by adding some herbs to any kind of milk which make an equivalent to goat’s milk.

**Evidence based scientific data**

**Goat’s milk**

Goat’s milk has characteristics of digestive and metabolic utilization of minerals such as iron, calcium, phosphorus and magnesium. It is used in anemia (iron deficiency) and bone demineralization (softening of the bones). A pharmacological study says that Due to the higher bioavailability of iron, calcium, phosphorus and magnesium, the restoration of altered hematological parameters and the better levels of parathyroid hormone (PTH), a hormone that regulates the calcium balance in the organism was found in the rats that consumed this food. In addition, and unlike observations in cow milk, its calcium enrichment does not interfere in the bioavailability of the minerals studied. The protein from goat milk can be suitable as a protein source for infant and follow-on formulae provided the final product complies with the compositional criteria as approved in EC.

**Donkey’s milk**

An analytical study on donkey milk protein profile demonstrated that human and donkey milk contain considerable amounts of lysozyme, lactoferrin and lactoperoxidase, confirming the high similarity between donkey and human milk. Thus the donkey milk is used to feed children affected by Cow Milk Protein Allergy (CMPA).

A preliminary study results show that donkey milk contains many antimicrobial components further than lysozyme. These components might play an important role in the improvement of the host defense system of newborn and small infants which either cannot be nourished by human milk or are allergic to other milks.

**Camel’s milk**

A study shows that it is having anti diabetic activity in streptozotocin induced diabetic rats. Another study
reveals that camel milk contains similar immunoglobulin but ten times smaller to mother’s milk which are easily absorbed in intestines and enter the blood stream and reduce children’s allergic reactions. Also in vitro tests have shown that camel milk reduces anti-immunoglobulins in the blood. It is reported that there are many “protective proteins” in camel milk that exert immunologic, bactericidal and viricidal properties. The most prominent of these are lactoferrin, lactoperoxidase, NAGase and PGRP. A camel variable domain antibody fraction is a potent and selective inhibitor of the hepatitis C enzyme system.

Buffalo milk

An interesting study shows the results that buffalo milk has high percentages of saturated fatty acids, retinol, tocopherol levels and lower percentages of unsaturated fatty acids compared to cow’s milk.

Research data comparison with Siddha literatures

1. Human’s milk composition is more or less equal with donkey’s milk as said in literature.
2. The donkey milk is used to feed children affected by Cow Milk Protein Allergy (CMPA) and it has many antimicrobial activities.
3. Human’s milk is used in eye diseases.
4. It is said that when adding up of water with Buffalo’s milk equal amount of water should be taken in account of diluting the concentrated saturated fatty acids. And also cow’s milk is better preferred rather than buffalo’s milk as a vehicle because of more amount of unsaturated fatty acids and other notable constituents.
5. Goat’s milk is good to consume and it alleviates many clinical conditions like iron deficiency anemia, strengthening bones and to maintain better levels of PTH.
6. Camel’s milk is having anti-diabetic activity.

Conclusion

The utilization of milk from various animals as said above can be encouraged not only for nutritive values and also for specific therapeutic properties. More number of literary researches must be discovered to explore in the research platform for healthy society.

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Illustrations

Illustration 1

Table 1

<table>
<thead>
<tr>
<th>No.</th>
<th>Milk products</th>
<th>Elements</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Milk</td>
<td>Space</td>
</tr>
<tr>
<td>2</td>
<td>Cool</td>
<td>Air</td>
</tr>
<tr>
<td>3</td>
<td>Human milk</td>
<td>Water</td>
</tr>
<tr>
<td>4</td>
<td>Human</td>
<td>Earth</td>
</tr>
<tr>
<td>5</td>
<td>Other</td>
<td>Fire</td>
</tr>
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Table 1
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