Distributions and Folk Tibb Knowledge of Milk Thistle (*Silybum marianum* L.) in NWFP, Pakistan

Khalid Hussain*, Syed Zia-ul-Hussnain and Aamir Shahazad

*Shakarganj Sugar Research Institute, Toba Road Jhang (Punjab), Pakistan
E-mail: khalidbotany@inbox.com

Issued: March 01, 2010

Abstract

The purpose of our survey was to collect distribution data and folk tibb knowledge of milk thistle at NWFP Pakistan. NWFP area’s including District Haripur and Abbottabad were visited during 2007 and 2008 in the month of December. Milk thistle (*Silybum marianum* L.) was found growing wildly covering about 20-52% area. A total of 90 Hakims and 90 local peoples were interviewed regarding the use of Milk thistle. It was concluded that Milk thistle was used for liver disease especially for Hepatitis. About 75% from interviewed community were using it seeds while 25% preferred to use its whole plant as medicine.

Key notes: Medicinal plants, folk tibb knowledge, Milk thistle.

Introduction

The history of discovery and use of different medicinal plants is as old as the history of discovery and use of plants for food (Ibrar, 2002). Medicinal plants play a key role in traditional health care system and a number of allopathic drugs are comprises of medicinal plants in the industrialized countries (Rashid and Arshad, 2002).

Haripur and Abbottabad lie between 33° 50’ to 34° 23’ North latitudes and 72° 35’ to 73° 31’ East longitudes. The climate of Hattar is moderate. During summer season, the climate is hot average temperature ranges between 30-35oC. The winter season is very cool and extends from November to March. It is the rich area for medicinal plants growing as wild (Hussain *et al.*, 2008).

Milk thistle (*Silybum marianum* L.) is a bitter, diuretic, tonic herb that regenerates liver cells, stimulates bile flow, used in hepatitis and gall bladder diseases (Bown, 1995). Silymarin, a seeds extract, dramatically improves liver regeneration in chronic viral hepatitis, cirrhosis, mushroom poising and other hepatopathies. German research suggests that silybin (most active compound of silymarin) is clinically useful in treating severe Amanita mushroom poising (Morazzoni, 1995).

In the view of above studies the main objective of present study was to document distribution and folk tibb knowledge Milk thistle in NWFP, Pakistan.
Materials and Methods

*Plant collection and preservation*

Field trips during 2008 and 2008 were arranged in order to collect distribution and folk Tibb knowledge about the ethnomedicinal use of Milk thistle in district of Haripur and Abbottabad, NWFP, Pakistan.

Standard method was followed with regard to collection of plant materials, drying, mounting, preparation and preservation of plant specimens (Nasir and Ali, 2001). Voucher specimens of Milk thistle in triplicates were collected, prepared and identified. The identification and nomenclature of the listed plants were based on The Flora of Pakistan (Nasir and Ali, 1978).

*Traditional folk Tibb knowledge*

Questionnaire method was adopted for documentation of folk indigenous knowledge. The interviews were carried out in local community, to investigate local people and knowledgeable persons (Hakims) who are the main user of medicinal plants. About 200 informants have been interviewed on random basis including 110 Hakims and 90 local peoples. Quadrate method was used to determine the ecological attributes i.e. frequency, constancy and density of Milk thistle during periodic field survey.

*Results*

During the present study, distribution and Folk Tibb ethnomedicinal knowledge 08 locations were visited and Quadrate method was used to determine the ecological attributes i.e. frequency, constancy and density of Milk thistle during periodic field survey.

It was found that Milk thistle growing as wild from October to May. It stated its germination in October and it matured in April to May. Maximum distribution was recorded in Haripur up to 52% of total plant species growing as wild in the area (Table-1). Other important wild medicinal plant species growing in these locations were *Acacia modesta, Adhatoda vasica, Berberis lyceum, Achyranthus aspera, Cannabis sativa, Solanum surrattense, Pinus Spp. Berberis lyceum, Dodonea viscose, Euphorbia helioscopia, Chenopodium ambrosioides* and *Solanum nigrum*.

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Locations</th>
<th>% of Milk Thistle in the area over other plants</th>
<th>Other important wild medicinal plants in that location</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Abbottabad</td>
<td>28</td>
<td><em>Acacia modesta, Adhatoda vasica, Berberis lyceum, Achyranthus aspera, Cannabis sativa, Solanum surrattense, Pinus Spp.</em></td>
</tr>
<tr>
<td>2</td>
<td>Haripur</td>
<td>52</td>
<td><em>Adhatoda vasica, Achyranthus aspera, Withania somnifera, Broussonetia papyrifera, Cannabis sativa, Cassia absus</em></td>
</tr>
<tr>
<td>3</td>
<td>Hattar</td>
<td>35</td>
<td><em>Adhatoda vasica, Cannabis sativa, Cassia absus</em></td>
</tr>
<tr>
<td>4</td>
<td>Hawaiian</td>
<td>20</td>
<td><em>Berberis lyceum, Dodonea viscose, Euphorbia helioscopia, Chenopodium ambrosioides, Cassia absus</em></td>
</tr>
<tr>
<td>5</td>
<td>Kanagrra Colony</td>
<td>37</td>
<td><em>Cassia absus, Cannabis sativa</em></td>
</tr>
</tbody>
</table>
A total of 180 people were interviewed including 90 hakims and 90 local community members. The main part of milk thistle was used in medicine was seeds and in local community whole plant. Conclusion about the use of milk thistle is given in Table-2. The following main medical uses of milk thistle were noted among the hakims and local community:

1. Liver problems
2. Hepatitis A-C
3. Stomach Diseases
4. Blood and skin disease
5. Anticancer
6. Vegetable
7. Tonic
8. Fodder for cattle mainly camel

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Locations</th>
<th>No. of Hakims interviewed</th>
<th>No. of local people interviewed</th>
<th>Use of milk thistle (Average conclusion)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Hakims</td>
</tr>
<tr>
<td>1</td>
<td>Abbottabad</td>
<td>25</td>
<td>25</td>
<td>Hepatitis and liver diseases</td>
</tr>
<tr>
<td>2</td>
<td>Haripur</td>
<td>20</td>
<td>20</td>
<td>Stomach and liver diseases</td>
</tr>
<tr>
<td>3</td>
<td>Hattar</td>
<td>10</td>
<td>10</td>
<td>Liver and skin diseases</td>
</tr>
<tr>
<td>4</td>
<td>Hawaiian</td>
<td>12</td>
<td>12</td>
<td>Hepatitis-C</td>
</tr>
<tr>
<td>5</td>
<td>Kanagra Colony</td>
<td>05</td>
<td>05</td>
<td>Hepatitis A-C</td>
</tr>
<tr>
<td>6</td>
<td>Kot Bandi</td>
<td>04</td>
<td>04</td>
<td>Antioxidant, liver and stomach diseases</td>
</tr>
<tr>
<td>7</td>
<td>Kot Najeebullah</td>
<td>06</td>
<td>06</td>
<td>Liver and anticancer</td>
</tr>
<tr>
<td>8</td>
<td>Mansehra</td>
<td>08</td>
<td>08</td>
<td>All problems of liver disorder</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total</td>
<td>90</td>
<td></td>
</tr>
</tbody>
</table>

Discussion
In ancient times, people had knowledge of medicinal plants. Several hundred species were used as herbal remedies in indigenous system of medicines that used the whole plant or an extraction (Hussain et al., 2008). Local people and practitioners with traditional knowledge collected these medicinal plants. Most were not involved in the trade of medicinal plants. The local people had a little knowledge about the species and proper time of collection (Shinwari and Khan, 1999).

The need for a specific definition of traditional knowledge is impelled by the push from the formal sector to control, manage and market the knowledge and to bring it under a regulatory framework. Traditional knowledge provides useful leads for scientific research, being the key to identifying those elements in a plant with a pharmacological value that is ultimately destined for the international markets. Indeed, such traditional knowledge is very valuable. Annual global sales of products derived from the manipulation of genetic resources lie between US$ 500 and US$800 billion annually (Kate and Laird, 1999).

There are considerable economic benefits in the development of indigenous medicines and in the use of medicinal plants for the treatment of various diseases (Azaizeh et al. 2003). Due to the lack of modern communications, as well as poverty, ignorance and unavailability of modern health facilities, most people especially rural people are still forced to practice traditional medicines for their common day ailments. Most of these people form the poorest link in the trade of medicinal plants (Khan, 2002).

Conclusions

The survey indicated that the study area has plenty of medicinal plants. The medical value of milk thistle has much importance in liver disease mainly hepatitis.

References


