

## NOTE

## Chemical Analysis of the Indigenous Drug: *Sufoof-e-Mohazzil*

N. BALASUBRAMANIAN†, D. SARAVANAN† and A. JAFAR AHAMED\*

*P.G. and Research Department of Chemistry  
Jamal Mohamed College, Tiruchirappalli-620 020, India*

Modern medicine cures diseases, but also causes side-effects and such side-effects are not observed much in the use of Siddha, Unani, Ayurveda and Homeopathy drugs. Very little work has been done regarding the systematic chemical analyses of *Sufoof-e-Mohazzil* indigenous drug.

Now-a-days Unani drugs are being used widely for curing many challenging diseases and invariably many are found adulterated with standard ingredients. With a view to proceeding with the systematic chemical analyses of such indigenous Unani drugs, a physico-chemical analysis of *Sufoof-e-Mohazzil* has been carried out. *Sufoof* is the powder form of a drug. It is made up of drugs of plant, animal and mineral origin. It retains its potency for one year. It is prepared from six ingredients. It is used to treat obesity. When the drug is taken internally, thinning of the body size is observed due to loss of fat.

The analysis involves determination of properties, such as solubility, ash value, saponification value, acid value and the identification as well as estimation of different organic compounds.

The analytical characteristics of the drug, *Sufoof-e-Mohazzil*, are estimated by employing the well known available methods.

The drug, considered for the present study, consists of the following ingredients:

| S.No. | Unani name of the ingredient | English name              | Botanical name                   |
|-------|------------------------------|---------------------------|----------------------------------|
| 1.    | <i>Nankhwah</i>              | Ajowa seeds Bishop's weed | <i>Ptychotis ajowam</i> DC       |
| 2.    | <i>Tukhm-e-Karafs</i>        | Celery                    | <i>Apium graveolens</i> Linn     |
| 3.    | <i>Gul-e-Surkh</i>           | Rose                      | <i>Rosa damascena</i> Mill       |
| 4.    | <i>Marzanjosh</i>            | Marjoram                  | <i>Oliganum vulgare</i> Linn     |
| 5.    | <i>Sumbul-ut-Teeb</i>        | Indian velerian           | <i>Nardostachys jotamansi</i> DC |
| 6.    | <i>Luk Maghsool</i>          | —                         | —                                |

†P.G. and Research Department of Chemistry, Bishop Heber College, Tiruchirappalli-620 017, India.

The determination of chemical characteristics involves qualitative, quantitative and chromatographic analyses. The results are given below:

|                    |      |
|--------------------|------|
| pH of 1% solution  | 6.05 |
| pH of 10% solution | 5.52 |

#### SUCCESSIVE EXTRACTION

|                           |            |
|---------------------------|------------|
| Petroleum-ether (60–80°C) | 16.21% w/w |
| Chloroform                | 6.30% w/w  |
| Ethanol                   | 10.46% w/w |

#### ASH VALUE

|                    |            |
|--------------------|------------|
| Total ash          | 7.45 w/w   |
| Water soluble ash  | 1.28% w/w  |
| Acid insoluble ash | 21.13% w/w |

|             |            |
|-------------|------------|
| Alkaloids   | 0.04% w/w  |
| Resins      | 29.83% w/w |
| Crude fibre | 25.67% w/w |

#### TITRIMETRY

|                          |        |
|--------------------------|--------|
| (a) Saponification value | 184.80 |
| (b) Acid value           | 163.24 |

TLC method was followed and the results are given below:

#### CHROMATOGRAPHIC ANALYSIS

| Extract                      | Solvent system                          | Spraying agent              | R <sub>f</sub> values |
|------------------------------|---|-----------------------------|-----------------------|
| Petroleum-ether<br>(60–80°C) | Petroleum-ether/ethyl acetate<br>24 : 1 | 5% Ethanolic sulphuric acid | 0.98                  |
|                              |   |                             | 0.32                  |
|                              |   |                             | 0.23                  |
|                              |   |                             | 0.15                  |

#### Conclusion

The results of the analysis of the drug *Sufoof-e-Mohazzil*, discussed in this paper, will be useful in assessing the quality of the drug as well as the purity of the ingredients.

#### ACKNOWLEDGEMENTS

The authors are thankful to the Management, the Principal and Head of the Department of Chemistry, Bishop Heber College for providing the research facilities.

#### REFERENCES

1. National Formulary of Unani Medicine, Part I, p. 229 (1981).
2. T.R. Radhakrishnan, A. Ramasamy and Shamsul Arfin, *Jour. Res. Edn. Indian Med.*, (Oct-Dec. 1989).

(Received: 21 August 1998; Accepted: 2 January 1999)

AJC-1670