

Active constituents and their therapeutic and pharmacological role in the most used herbs in Basrah

Wurood Hantoosh Neamah^{1*}, Fatimah Ali Hasan², Wageeha Mosa Essaa³

¹University of Basrah, Basrah, Iraq;

²University of Basrah, Basrah, Iraq; fatimah.hasan@uobasrah.edu.iq;

³University of Basrah, Basrah, Iraq; wageeha.essaa@uobasrah.edu.iq;

* Correspondence: wurood.neamah@uobasrah.edu.iq; Tel.: (+9647819865272)

Available from: <http://dx.doi.org/10.21931/RB/2023.08.04.51>

ABSTRACT

Basrah is a southern Iraq governorate bordering Kuwait to the south and Iran to the east. It is the second population city in Iraq after Baghdad. Via the directed questionnaire to 22 herbalists, a list of medicinal herbs used in ascending order by the flock in a city was obtained. The five most used herbs on the list head are *Matricaria chamomilla* (chamomile), *Nigella sativa* (black seed), *Anchusa italica* (Italian bugloss), *Pimpinella anisum* (anise), and *Trigonella foenum graecu* (fenugreek). GC\MS analysis of the first five herbs displayed numerous remarkable constituents, including N-Hexadecanoic acid, Thymoquinone, 9,12-Octadecadienoic acid, 2,3-Dihydroxypropyl ester, 5-Hydroxymethylfurfural, Anethole, Vitamin E, Campesterol, Stigmasterol, and gamma-Sitosterol that elucidate the purpose from a comprehensive utilization of these herbs by folk in the city. A current study adds a new input to the database. It exhibits an integrative investigation of Basrah governorate's most used medicinal herbs, their constituents, and their therapeutic and pharmacological role.

Keywords: Basrah, Constituents, GC/MS, Herbs, Pharmacology role, Therapy role

INTRODUCTION

Iraq was previously well known for a significant variation of wild plants due to its geographic location and climatic circumstances. It has 363 medicinal plant species belonging to about 270 genera from approximately 98 families¹. Basrah is one of the three essential cities established in Iraq after Baghdad and Mosul. It is located in southern Iraq, bordering Kuwait to the south and Iran to the east². Basrah embraces Shatt Al Arab, a considerable river from the confluence of the great Euphrates and Tigris rivers at Qurna town. A river penetrates the city and connects it with the Arabian Gulf, which gives the town a coastal feel. Shatt Al Arab has numerous branches that feed huge lands in Basrah and give the city agricultural features³. Water abundance, fertile soil, and warm temperature paved for diversity in wild plant growth, which was used by folk for medical purposes for centuries. However, in two recent decades, several causes have influenced the abundance and variety of wild plants, including climate change, salinity intrusion, drought, desertification, topography changes and human activities. Substantial desert areas in Basra were previously green and covered with different wild and implanted plants⁴.

Furthermore, these changes caused the decline of agricultural lands and deterioration of soil fertility, significantly affecting previous causes in the density and distribution of wild plants. Consequently, they reduced the exhibition of local herbs in the markets. However, herbs markets in Basrah present a variety of species of