

Ethno Botanical Medicinal Importance of *Olea europea* (zaytun) - A Review

Tambe Satish and Ziya Ansari *

S.P.H. Mahila College Malegaon Camp, Malegaon, Nashik

*Corresponding Author Email: ziya.ansari89@yahoo.com

ABSTRACT

The main aim of this study is to document the knowledge of *Olea europea* (zaytun) ethnobotanical importance of fruits in the light of Islam. In Islam the 10 fruit plant species belonging to 10 genera of 9 families widely used i.e *Citrullus lanatus* (Thunb.) Mats. & Nakai, *Cucumis sativus* L., *Cydonia oblonga* Mill. *Ficus carica* L., *Olea europea* L., *Phoenix dactylifera* L., *Punica granatum* L., *Salvadora persica* L., *Vitis vinifera* L. and *Zizyphus mauritiana* Lam. mentioned Holy Quran and Ahadith. Widely used to curing the various ailments in Malegaon people. *Olea europea* is one of them. The article reviews the main reports of the pharmacological, traditional value and folk remedies of these trees.

Key Words: - *Olea europea*, Ailments, Malegaon, Ethnobotanical.

INTRODUCTION

Indian Ayurveda along with the Jamu, Siddha, Tibetan, traditional Chinese and Unani systems of medicine are an important source of health and livelihood for millions of Asian people. Ayurvedic medicine is widely practised especially in Bangladesh, India, Nepal, Pakistan and Sri Lanka. The Chinese traditional medicine technique, particularly acupuncture, is the most widely used and is practised in every region of the world. Unani medicine draws from the traditional systems of medicine of China, Egypt, India, Iraq, Persia and the Syrian Arab Republic and is also known as Arabic medicine ¹.

Plants are an essential component of the universe. Human beings have used plants as medicine from the very beginning of time. After various observations and experimentations medicinal plants were identified as a source of important medicine, therefore, treatment through these medicinal plants, began in the early stages of human civilization ². Approximately 70% of the homeopathic drugs are prepared from the fresh plants. Similarly more than 90% of tibbi medicines are prepared from herbs. Pakistan is very rich in plants of medicinal value ³.

Olea europea (Olive-zaytun) is another plant that has many references in Holy Quran and Ahadith. Almighty Allah has said, "By the Fig and Olive; By Mount Sinai and By this land which is made safe. Surely we created man of the best stature" ⁴. In Ahadith it is said that "eat the olive oil and applied it on the body, it is cure of seventy diseases". The saying of Holy Prophet (Sallallahu Alayhi Wasallam) about medicines are spread over 200 books in the world ⁵. The massage of olive oil over the body tones up the muscles and organs, it relieves muscular pains. It relieves the Sciatic and arthritis. It is a good Diuretic, hence is used in Ascites. It also removes the kidney stones ⁶.

Classification:-

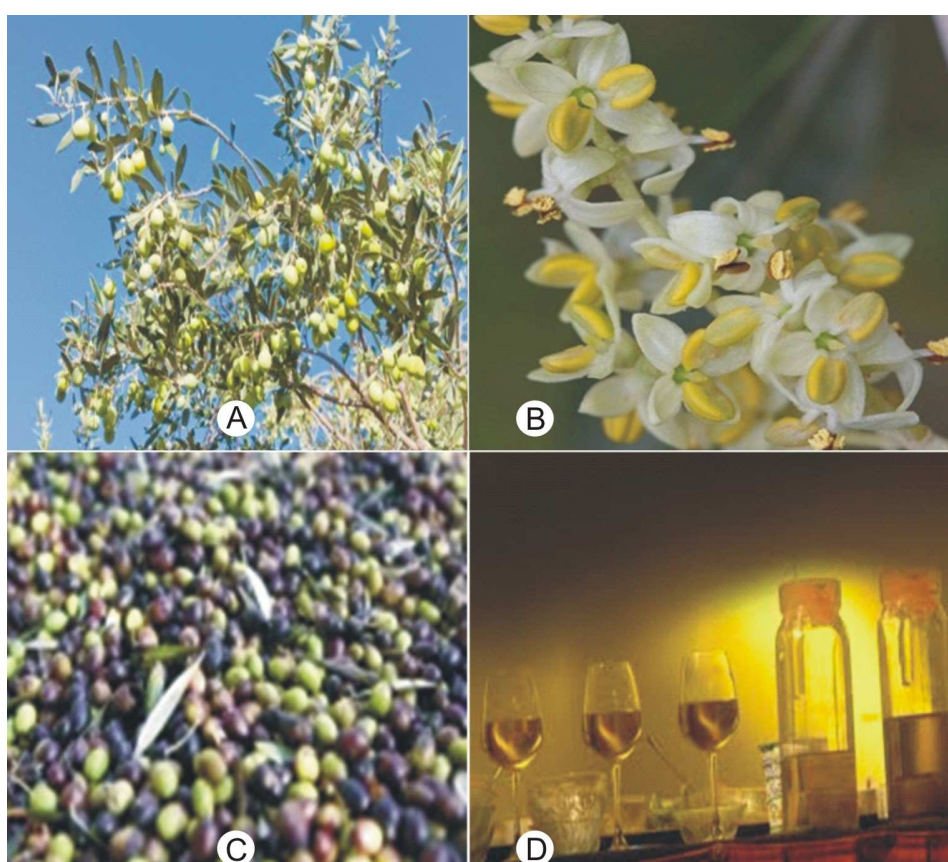
Kingdom	: Plantae
Division	: Angiosperm
Class	: Dicot
Order	: Lamiales
Family	: Oleaceae
Genus	: <i>Olea</i>
Species	: <i>europea</i>

Description: - The olive tree, *Olea europaea*, is an evergreen tree or shrub native to the Mediterranean, Asia and Africa. It is short and squat, and rarely exceeds 8–15 meters (26–49 ft) in height. However, the *Pisciottana*, a unique variety comprising 40,000 trees found only in the area around Pisciotta in the Campania region of southern Italy often exceeds 8–15 meters (26–49 ft) with correspondingly large trunk diameters. The silvery green leaves are oblong, measuring 4–10 centimeters (1.6–3.9 in) long and 1–3 centimeters (0.39–1.2 in) wide. The trunk is typically gnarled and twisted.

The small white, feathery flowers, with ten-cleft calyx and corolla, two stamens and bifid stigma, are borne generally on the previous year's wood, in racemes springing from the axils of the leaves. (Photo Plate 1)

The fruit is a small drupe 1–2.5 centimeters (0.39–0.98 in) long, thinner-fleshed and smaller in wild plants than in orchard cultivars. Olives are harvested in the green to purple stage. Canned black olives may contain chemicals (usually ferrous sulfate) that turn them black artificially.

Photo Plate: 1



A:- Plant body, B:- Flower, C:- Fruit, D:- Beverage

Medicinal uses:

Strengthen body muscles, slow down aging, clear the blood, remove the measlespot, piles, tuberculosis, eczema, baldness, kidney pain, pancreas pain, maleness, common cold, stomach and respiratory diseases. And out of the date palm and its spathe come forth clusters of dates hanging low and near and gardens of grapes, olive and pomegranates, each similar (in kind) yet different (Wasallam) that we should treat the Pleurisy with (in variety and taste). Look at their fruits when they begin to bear and the ripeness thereof. Verily! In these things there are signs for people who believe. Even though cardiovascular risk and coronary heart disease (CHD) have always been associated with classic risk factors such as high serum cholesterol and blood pressure, evidence shows

that the prevalence of such factors does not differ significantly between the populations of the Mediterranean area—where the incidence of CHD and certain cancers, e.g. breast and colon cancers, is lowest—and those of other North-European and Western countries⁷. As far as the cardiovascular system is concerned, the protective properties of olive oil have been, until recently, exclusively attributed to its high monounsaturated fatty acid (MFA) content, mostly in the form of oleic acid (18:1n-9). Indeed, monounsaturate supplementation leads to enhanced resistance of LDL to oxidation⁸, hence lowering one of the risk factors for CHD⁹.

Phytochemical Screening of the *Olea Europaea* Leaves

Ethanol; chloroform; hydrochloric and aqueous extracts were prepared for phytochemical screening of *Olea europaea* leaves. The extracts were subjected to phytochemical tests for leaves secondary metabolites, tannins, saponins, steroid, alkaloids, flavonoid, unsaturated sterol and terpen in accordance with^{10,11}

The antimicrobial activity of a plant is highly related to secondary substances that are synthesized and produced by these plants¹². Secondary metabolites are substances of low molecular weight, which were not the products of the primary metabolic pathway of the producing organism and at first thought to be with no advantage to the plant. Nowadays it is believed that they have vital functions¹³. The aim of this study was to determine the antimicrobial activity of the aqueous extract of *Olea europaea* leaves against contaminating or pathogenic microorganisms *Olea europaea* leaves may be useful in cases where prolonged use of antibiotics encourage development of opportunistic infections¹⁴, being especially effective against *Klebsiella* and *Pseudomonas*, two bacterial genera which pose a major resistance problem¹⁵.

Activities on Enzymes

Addition to their antioxidant actions, the activities of olive oil phenolics on enzymes have been tested in a variety of cellular models, (i.e. platelets, leukocytes, and macrophages) relevant to human pathology. Most olive oil phenolics are amphiphilic and possess the ability to modulate enzymes such as cyclo- and lipoxygenases, NAD(P)H oxidase, and nitric oxide synthase, that are involved in key functions of those cells. Hydroxytyrosol was found to inhibit a) chemically-induced *in vitro* platelet aggregation, b) the accumulation of the pro-aggregant agent thromboxane in human serum, c) the production of the pro-inflammatory molecules leukotrienes by activated human leukocytes, and d) to inhibit arachidonate lipoxygenase activity (^{16, 17, 18, 19}).

CONCLUSION

Cure of diseases through medicinal plants is always a salient feature of Islamic teaching and preaching. Islamic medicine started from Hazrat Adam (Alayhi Salam) and was completed at Hazrat Muhammad (Sallallahu Alayhi Wasallam) but search and compiling of these medicines is still continued through out the world²⁰. The Holy Quran is the eternal and everlasting basis of Islam. It contains signs and verses which have been leading people of different ages and of different academics and intellectual background to believe in Islam. The Holy Quran from the very start has a claim that it covers every aspect of life and is full of wisdom. It speaks “We have neglected nothing in the Book”²¹. It is concluded that herbal medicines are being widely used in the world because of better cultural accept ability, least injurious with none or much reduced side effects.

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