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Short Communication

Phytochemical Evaluation and uses of *Ximenia americana* L in Central Darfur

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ABSTRACT

Ximenia americana which belongs to the family Olacaceae local people traditionally used plant parts such as bark, leaves, and fruits for the treatment of different human ailments and disorder. The study was conducted to find out the scientific translate and basis for the use of the plant. Chemical and biochemical constituents medicinally use of the extract were determined. The extract was active against different microbiological organisms were found. Results showed the presence of saponins, few alkaloids, tannins, flavonoids, terpenes, triterpenes sterols, and coumarins in all extracts. The present of different amount of anthrax-quinones, starch, general glycosides, and bitter principles. The study encourages those who believe in the traditional use of this plant by herbalists as a remedy and curing different ailments.

Keywords: *Ximenia americana*; Microbiological organisms; Medicine; Infection; Biochemical constituents

DESCRIPTION

Ximenia americana which belongs to the family Olacaceae local people traditionally used plant parts such as bark, leaves, and fruits for the treatment of different human ailments and disorder. The study was conducted to find out the scientific translate and basis for the use of the plant. Chemical and biochemical constituents medicinally use of the extract were determined [1]. The extract was active against different microbiological organisms were found. Results showed the presence of saponins, few alkaloids, tannins, flavonoids, terpenes, triterpenes sterols, and coumarins in all extracts. The present of different amount of anthrax-quinones, starch, general glycosides, and bitter principles. The study encourages those who believe in the traditional use of this plant by herbalists as a remedy and curing different ailments.

Ximenia americana is a tree which belongs to the family Olecaceae is widely distributed in different regions of the Sudan. It is widely spread in the high land of Darfur (Jabal Marra, Radom); Blue Nile (Ingessena Hills); Kordofan (Nuba Mountains, Nuhud); Red Sea Hills (Erkwit). X. *americana* bark, fruit and leaves were used by nomads and different people as a traditional medicine for themselves and their animals. The fruit is a rich is a very good source of vitamin C and contains hydrocyanic acid riproximin.

Ximenia americana L. (Olacaceae), has different names according to the where it found, it's known as 'wild plum', 'yellow plum' or sea Lemon. *Ximenia* is a semi-scan dent shrub or small tree with small elliptic leaves and whitish to yellowish-green flowers borne in small cymes. Although X. *americana* is a tropical plant but it's widespread throughout tropical and subtropical countries in Central and Southern America, Africa, India and Southeast Asia to Australia, New Zealand, and Pacific islands.

Now a days in developing countries scientist looking forward to find medicine with less or without side effects. Thus, up to 80% of the population use medicinal plants as remedies [2]. WHO (1978) notes that of 119 plant-derived pharmaceutical medicines, about 74% are used in modern medicines in ways that correlate directly with their traditional uses as plant medicines by native cultures.

The plant is a bushy and spiny shrub or small tree, 4-5 m high with open crown. The fruits are green but turn golden yellow or red when ripe according to its species. The fruit consumed when it turns yellow and it has a refreshing and acid taste [3]. The extract of the plant traditionally used to treat and remedy such diseases like skin infections, ulcer, leprosy, malaria and Trypanosoma congolense infection in mice. It was believed that the plant has anti-inflammatory action and antimicrobial activity and use to cure rheumatic pain.

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This specie is widely used in folk medicine of different countries to treat several human ailments. Different parts of the plant were prepared and used in medication toothaches, mumps and conjunctivitis in frontal applications in many African countries. Scientist reported the lot of medicinal uses of *Ximenia* treatments for headaches, toothaches, fevers, constipation, leprosy, infections of the eyes and ears [4]. Human Ailments and disease were cured and remedy traditionally with *Ximenia americana* bark and leaves. Petroleum ether and methanol using cold extraction method (maceration) were used to extract such substances from *Ximenia* Bark.

An Ethnobotanical survey carried with plants used in African medicine it's found that a compound of *Ximenia* root extracts is an essential medicine to cure leprosy. The fruits which were rich of many nutritional compounds and other martials, as well as the leaves consumed as anthelmintic, active against worms and diarrhea.

Others studies showed that X. *americana* was used for inflammations in general for healing, urinary tract infection, diarrhea, anti-parasitic, mental illness, leprotic ulcers, antiseptic, diuretic, ovarian and prostatic inflammations, pains, bloodshed, itching, burning, gastritis, fracture, inflammation, analgesic, anti-pyretic, cancer, hepatoprotective, ulcers, skin infections, purgative backache, hemorrhage, rash, toothache, and menstrual colic. The ordinary parts used are bark and leaves [5]. Moreover, the forms used were infusion, decoction, tincture, syrup, and cataplasm. In fact, the phytochemical agents in medicinal plants work together with nutrients found in vegetables, fruits and nuts might even slow the aging process, prevent the risk of or cure many diseases such as heart diseases, diabetics, high blood pressure, cancer, tuberculosis, cataracts and urinary tract infections.

Ximenia americana fruits stem bark, roots and leaves possess antimicrobial activity. This can explain the rationale for the use of the plant in treating infections in traditional medicine. The plant could be a veritable and cheaper substitute for conventional drugs since the plant is easily obtainable and the extract can made *via* a simple process of maceration or infusion. In spite of the multipurpose use of X. *americana* it is locally vulnerable from a number of resource degradation factors.

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