

The effect of *Citrullus colocynthis* extract on cutaneous leishmaniasis lesion in human

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ABSTRACT

Citrullus colocynthis fruits and leaf has long been used for industrial, commercial and medical purpose. The present study was performed to determine the efficacy of *Citrullus colocynthis* on cutaneous leishmaniasis lesion in human. Sufficient amount of *Citrullus colocynthis* fruits were prepared and dissolved in 80 Methanol and prepared in ointment base at 80% concentration. At the alternate time 2 groups of human, which have been infected by leishmaniasis, and 2 experimental groups receiving 80% concentrates of *C. colocynthis* extract. *Citrullus colocynthis* extract: every 3 days they receiving leaf powder of *C. colocynthis*. *C. colocynthis* extract reduced the rate of disease.

Key words: Cutaneous leishmaniasis, *Citrullus colocynthis*, humans.

INTRODUCTION

Pharmaceutical effects of Colocynthis on aleppo boil lesion in human

Pharmaceutical effects of medicinal plants are taken into consideration in present century. The medicinal plants have saponins and flavonoids in known composition. Several reports of pharmaceutical properties of Colocynthis particularly the report is based on locosythos activity of Colocynthis lead us to study the effects of this plant on aleppo boil which is a cutaneous illness and caused by Leishmaniasis parasite.

Method of study

The effects of fruit pulps extract and leaf powder of Colocynth on Aleppo boil lesion are observed and investigated in this study.

Extraction of colocynthis fruit is done by 70% methanol and with regard to poisonness of different parts of this plant it is used externally. Two groups of villagers around Boshehr who were infected by *Aleppo boil* lesion on their face and hands were attended by this medicine

All the persons who were infected by *Aleppo boil* lesion either on their hands or on their faces cured completely. In the beginning of Aleppo boil lesson, it is successfully treated by extract of Colocynthis fruit and its leaf powder effective in the next stage of the diseases.

Botanical diagnosis of Colocynthis

Colocynthis is a climbing plant with a lying or rising stem which is covered by tomentum and fibre. Colocynthis leaves are alternate and jagged lobes are covered with tomentum and becomes yellow when flowers, when flowers are isolated and single-leg. Male flower has a yellow- orange corolla and female flowers are completely similar to male flowers but instead of flag they have pistil with several ovules, its fruit is spherical and yellow and is covered by a firm and thin skin and it has white and spongy center. There are white and elliptical seeds in the fruit.

Dispersion

Colocynthis is found in Meditterian, India, Ceylon and North Africa and is also grown in Boushehr, Fars, Babuchestan and South Khorasan province wildly.

Ecological requirement

It grows well in deserts, brackish ground and alkaline grounds and has a strong resistance to dryness and saltiness. This plant is native of Boushehr province and it grows wild in homes.

Short history about medicinal properties of colocynthis

The fruit of this plant has strong medical properties and is used for weakness of gut activity and hepatic illnesses. It is reported that the extract of colocynthis effective in inhibiting the growth of cancer cells. In strengthening the immune system, the extract of Colocynthis is also used. In recent immunological researches, it is reported that extract of colocynthis is assessed by MTT test as *in vitro* and it has haltering effect on cellules period of larynx cancer. In the vicinity of extract of colocynthis is assessed and recorded its usage. Colocynthis with radioactive rays stopped the growth of cancerous tumors. It is noticeable that the powder of colocynthis plant is used as remedy for diabetes all over the world. It has wonderful effects on improvement of patients. Fruit of Colocynthis is used as a remedy for constipation, diabetes, rheumathism disease, skin infections and abortion.

Fruit, root and fruit pulp have toxic properties. Effective substance of this plant is colocynthin which is used in alleviation of diseases. Colocynthis is belonged to Cucurbitaceae family that include variety of Cucurbitasins, Cucurbitasins of colocynth are steroid saponins. Flavonoids and alkaloids are another composition of Colocynthis pulp seeds of colocynth, it has fat, glucose and amino acids.

MATERIAL AND METHODS

To extraction, fruit pulp is separated from skin and seed. Colocynthis pulp is extracted by 80%

methanol solution this extract is tested as *in vitro*. First necessary amount of fruit pulp of colocynth is provided and then it is homogenized and dissolved in 80% methanol. Resulted extract is thicken in vacancy by distiller machine and then it is provided as pomade with 80% concentration and is kept in refrigerator till it is used. We recognize, persons who were suffering from Aleppo boil lesion in villages around Boushehr and we put them in one-week period of remedy. We put the pomade which was prepared with fruit pulp of Colocynthis on Aleppo boil lesion as poultice for 3 days, necessary amount of fresh leaves of Colocynthis is prepared, grow and applied on the lesions.

RESULTS

On the basis of obtained results of two groups of receiveres of the Colocynthis pulp extract and its grinded leaves, it is cleared that Aleppo boil lesion is completely cured by it and even its spot doesn't remains on face and hand.

It is suggested that recent research done more spreadly and pomade of anti Aleppo boil lesion is produced. With due attention to that alkaloids that are in a plant are similar with respect to their formula. Then molecular weight of them are close to each other for determining the molecular weight of alkaloids the average molecular weight is considered and it is calculated in proportion to 5 gram used sample. The general results show that the amount of existence of alkaloids in leaves and fruit is equal 0.333% ~ 0.331% and their amount in root is more than that in fruit and leaves.

CONCLUSION

Possibilities of test *in vivo* are needed on experimental animals, but in our country we dont have facilities for *in vivo* studies.

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