

***OCIMUM AMERICANUM* L. – A PLANT REMEDY USED IN APPENDICITIS
BY THE TRIBALS OF SOUTH EAST RAJASTHAN**

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A B S T R A C T

Appendicitis a well known intestinal disease now a days is caused by appendicular infection and inflammation. In modern allopathic system there is no perfect treatment of this disease except appendectomy. However, this disease is completely cured by the Bhil tribals of Jhalawar district (South-East Rajasthan), by the local application of plant paste of *Ocimum americanum* L. (Lamiaceae) on patient's abdomen. No further abdominal surgery of the patient is required in this particular mode of treatment. It is expected that after further researches this plant might prove a great source of safe, cheap and effective drug for the cure of appendicitis and will be a great asset for the welfare of human society.

INTRODUCTION

Appendicitis is an abdominal disease caused by an inflammation in appendix (an out growth of large gut or caecum) of the human body. This has become one of the most common abdominal disease in present day human society and cosmopolitan in distribution. But, its frequency is higher in tribal and in rural societies where due to malnutrition and water contamination large number of cases are observed. Root cause of appendicular inflammation is any sort of obstruction in the organ.

Symptoms : Pain around the umbilicus but usually in upper abdomen, after some time pain is shifted to right iliac fossa, maximum pain is observed at the Mc'burnies point (a particular spot on abdomen). The pain is followed by mild to moderate fever and vomiting. This is known as appendicular pain, as it is caused by severe inflammation in appendix, and it may be continuous or spasmodic. If the pain is of continuous nature, then in earlier stages it is mild and gradually becomes intensified. Later on spasmodic pain is observed in the patients of obstructive appendicitis where appendicular inflammation and infection is caused

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by obstruction in appendix by the entrance of a solid and unpalatable food particle or some insect or some nematode e.g. Thread worm etc. In such cases recurrent pain is observed. Severity of the pain also depends upon the anatomical position of appendix, in pre illial or 3 O'Clock position (at the 90° of umblicus) two or three loose motions are followed by appendicular pain & pain occurs only in right fossa. In 6 O'Clock position (at the 180° of umblicus) the disease symptoms are often misunderstood with the urinary tract infection as one or two drops of blood are observed in the urine of patient. In such cases proper diagnosis of the disease can be made only by careful pathological examinations of blood and by correct X-Ray picture. (Bailey & Love 1932).

Diagnosis : Correct diagnosis of the disease can be made only by (1) Pathological test of the Blood (T.D.L.C.), under which total leucocytes count are found increase up to 9000-20000/mm. (2) X-Ray picture of abdomen. Besides these 2 diagnostic tests, in most of the cases the above mentioned symptoms of the disease are also helpful in its diagnosis.

If not properly attended and treated in time, this disease may prove fatal in later stages the appendix may also burst due to excessive inflammation and due to severe infection. However, in cases of mild infection a patient may also suffer with recurrent pains and appendicular dyspepsia, (loss of appetite) after a sufficient gap of few months. This also causes considerable weakness in patient's body and may be also dangerous to life as there is always a possiblility in the enhancement of infection and inflammation in appendix.

Treatment & Remedies : As far as allopathy or modern system of medicine is concerned, there is no perfect treatment of this disease except appendectomy *i.e.* amputation of appendix by abdominal surgery. However, oral and injectable antibiotic, analgesic and antiamoebic drugs are suggested for the conservative treatment to the patients who are very much sensitive for surgery. But, this sort of treatment is not perfect cure of the disease. It may provide temporary relief to the patient. Recurrence of the disease is always possible in such cases.

During plant exploration and ethnobotanical studies of Mukundara ranges (South East Rajasthan) from 1982 onwards author came across the use of *Ocimum americanum* L. as a plant drug used for the treatment of appendicitis by Bhils and Banjara tribals of Asnawar, Aklera, Manoharthana and Brindaban localities of Jhalawar district.

Previously ethnobotanical studies in various parts of South and eastern Rajasthan were carried out by Singh & Pandey (1980, 1998) and Joshi (1982, 1983 & 1989). But this unique plant drug could not be spotted upto now.

ENUMERATION

Ocimum americanum L. (Lamiaceae) Bantulsi or Jangli tulsi.

Erect much branched, pubescent semi woody herbs, 30-80 cm high. Leaves ovate elliptic to lanceolate entire or semi crenate gland dotted petiole slender hairy. Flowers purplish, 3-6 in each whorl on 10-20 cm long inflorescence. Calyx hairy, lower calyx teeth longer than upper lip. Lower lip of corolla flat. Filaments very long, the 2 upper ones toothed at the base nutlets oblong, black, become mucilaginous when put in water.

Spec. Loc. Cit. : Asnawar; NKS 885, Acc. No.14925 (RUBL).

Commonly found throughout the area in sandy & gravelly soils, near fields and in waste lands.

Ethnomedicinal uses : Medicinally the plant has got higher importance for the people of the tribal and rural areas located in the remote and farthest hilly corners where neither proper and modern medical facilities are available, nor proper modes of conveyance are there. In such places, Mukhias or local Vaidyas utilize this plant for the miraculous and perfect treatment of appendicitis disease, locally known as **Dhab Gola** or **Bai Gola** due to the right abdominal pain in the disease. On the appearance of abdominal pain in any case these local or tribal Vaidyas wait for at least sometime till perfect symptoms of the disease appear. They keep the patient under observation for this purpose. After the occurrence of perfect symptoms *i.e.* pain in right abdomen or around umbilicus associated with mild or moderate fever and vomiting, the treatment is started. Fresh, young and delicate twigs (including, fruits, flowers, leaves and stem) of the plant are taken and crushed to form a paste. Sometimes younger roots and root branches are also crushed along with shoot in the process of paste formation. 5-10 gm paste is prepared and gently heated with ground nut or sesame oil in a pan. When it becomes lukewarm hot then it is taken out and applied locally on patient's abdomen at the point where the pain is of maximum occurrence. Then it is covered with clean and dry cotton cloth, so that the paste may not be displaced from the abdomen and effective heat of the

medicine might not be emitted out of patient's body. The paste is prepared from the fresh plants only, when required. This paste is applied locally on patient's abdomen twice a day (morning and night) for two days, and the disease is cured completely without the use of any oral or injectable drug or surgery, as observed by author himself. After observing this unique style or treatment author himself has done the experiment of this plant for the treatment of appendicitis at least in case of twenty patients. In all the cases, the disease was also diagnostically confirmed by pathological and X-Ray examinations. Two patients of them were hospitalized and going to be operated after sometime. When the paste was locally applied, the pain disappeared, fever was normal within an hour and no vomits were there after 2 hours. After 24 hours, the blood tests of the patients revealed about the fall in W.B.C. count to only six thousand. Not only this, out of the 20 patients not even a single case reported about the recurrence of appendicular pain, hence it may be acknowledged as permanent cure of the disease.

Notes :

(1) Normally the paste is advised to be heated very gently, preferably on the flames of dung cake burning. But it may be heated on gas burner flame also (as done by author), of course much gently.

(2) Paste prepared by Panchang (Fruits + Flowers + Leaves + Stem + Root) of *Ocimum americanum* L. plant is said to be most effective for the treatment. If all these plant parts are not available then paste of remaining ones may be utilized, but in fresh condition only.

Precautions : A through diagnosis of the disease should be made before the start of treatment, as it is not useful in the treatment of other abdominal, renal and peptic disorders.

Other uses of the plant : Besides the treatment of appendicitis, the plant *O. americanum* has got following medicinal uses also in the area :

Fresh plant itself or fumigation of dried plant in the house acts as mosquito repellent. Hence, tribals and rural people often use this plant as a preventive measure of malaria and other diseases spread by mosquito bite. This repellent quality may be due to strong and unpleasant plant odour for mosquito. The seeds crushed into the

form of paste and 5 gm paste + 5 gm. Sugarcandy is given with water for the treatment of some urinary disorders. It is said to provide relief in urinary troubles.

DISCUSSION

The immediate relief after the use of fresh paste in appendicitis disease may be attributed to the possible dialation of appendicular aperture by the pharmacological peculiarities of plants juice. This dialation of aperture may very easily cause the exist of solid particle responsible for obstruction in appendix. Another reason for the relief may be attributed to the possible antibiotic properties of plant paste which may very well cause the immediate deterioration of appendicular infection and thus decreasing the inflammation of appendix considerably resulting into immediate relief to the patient, or it may be due to sub-cutaneous effect of the plant drug which induce the secretion of some gastric juices or enzymes reponsible for the digestion of obstructing particle.

However, it was beyond any one's imagination that plant paste may be prefectly effective even when it is utilized locally and not taken orally by the patient. This may be attributed to the subcutaneous mode of action exclusively. Now, it is for the pharmacologists and biochemists to find out the exact nature of the plant drug and its mode of action in various ailments. Only then it will be a fine source of safe, cheap and effective drug for modern human society.

ACKNOWLEDGEMENTS

I am grateful to my teacher Prof. B. Tiagi for constant encouragement during the course of research work, to U.G.C. for financial help. Thanks are due to Sarva Shri. Y.S. Sharma & R.N. Paliwal of Jhalawar for their help in field studies.

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