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Preliminary Phytochemical Investigation of Medicinally Important Plant *Ctenolepis Garcinii* (Brum.F.) C. B. Clarke

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Abstract:-
Plants constitute a source of novel chemical compounds which are of potential use in medicine and other applications. Ctenolepis garcinii (Burm.f.)C.B.Clarke is one of the traditional remedies the fruits, seeds and roots are used for treatment of infectious diseases. The plant is used for treatment of throat disorders, roots are given in colic, fever, indigestion, anorexia and rheumatism, paste of leaves is applied to swellings, and fruits are given in gonorrhoea. Phytochemical screening was done to assess the presence of secondary metabolites and from various extracts reported presence of anthocyanin, alkaloids, steroids, tannins, saponins, flavonoids, quinones, glycosides, cardiac glycoside, terpenoids, phenols, anthraquinones, phlobatannins and coumarins .
Keywords:- Ctenolepis garcinii(Burm.f)C.B. Clarke, secondary metabolites, phytochemical screening.

Introduction:-
Medicinal plants have been a valuable source of natural active constituents that products for tomaintain human health and treatment of many human diseases. *Ctenolepis garcinii* (Burm.f.) C. B. Clarke, is a climber belonging to the family Cucurbitaceae have large medicinal value in medical sciences. Plants are annual, slender, monoecious with climbing tendrils; stem slender, elongated, striate, branched, glabrous;leaves membranous, 2.5-5cm long and broad at first hirsute, afterwards scabrid deeply 3-5 loped, the lobes usually obovate, obtuse or acute, constricted at the base, denticulate or crenulatly toothed, the intermediate lobe scarcely longer than the others, mucronate, petioles 1.3-3.8cm long, slender, striate, shortly hirsute, at length scabrid. Stipular bracts4-8mm long, ovate shortly hairy, fringed on the margin with long filiform cilia. Male flowers yellowish white, 3-4 at the apex of a slender peduncle less than 13mm long, pedicels 1-2mm long. Female flowers are solitary on very short peduncles. Fruits broader than long, 4-6 by 8-10mm, bright red, glabrous inversely sub-reniform or hammer shaped. Seeds 6-8 by 3mm, oblong, yellowish grey, rounded at the apex, slightly attenuated at the base, with a deep pit on one face, convex on the other, the edge thick and obtuse. (8)*Ctenolepis garcinii* (Burm.f.)C.B.Clarke is one of the traditional remedies the fruits, seeds and roots are used for treatment of infectious diseases. The species as being used for as a treatment for quinsy and other throat disorders, roots are given in colic, fever, indigestion, anorexia and rheumatism, paste of leaves is applied to swelling, fruits are given in gonorrhea, fruit pulp is used on foot sole for treatment in heat in the body. Plant parts are reported as hepatoprotective, anticancerous, antibacterial, antifungal and anti-inflammatory (17) Preliminary phytochemical investigation of medicinally important plant *ctenolepis garcinii* (Brum.f.)C.B.Clarke carried out to assess the presence of various phytoconstituents and secondary metabolites from various extracts.

Material and Methods:-
The selected plant material in the present study is *Ctenolepis garcinii* belonging (Burm.f.) C. B. Clarke to the family Cucurbitaceae which was collected from near to Malkhed region , located in Amravati district, Maharashtra, India during the month of January , 2017, identified and confirmed with the help of flora of the Maharashtra. The collected materials were washed thoroughly with water and were shade dried. Dried plant parts were powdered with the help of mixer grinder and stored separately in the air tight polythene zip lock bags for future analysis.

Phytochemical tests were carried out for to confirm the presence of secondary metabolites like flavonoids, tannins, phenols, saponins, anthocyanins, glycosides, anthraquinones, alkaloids and steroids were done by using standard methods. Powders were extracted in chloroform, methanol, ethanol, benzene and water by Soxhlet extraction method. Responses to various tests were denoted.

Result and discussion:-
Plant constitutes a source of various chemical compounds which are of potentially used in the medicine and other applications. naturally occurring substances in plant are organic substances the play role in primary and secondary metabolic processes, they also provide a source of medicine since long time and used in traditional remedies for the treatment of various infectious diseases. The plant kingdom has proven to be the most useful in the treatment of diseases and they provide an important source of world's pharmaceutical (4). In the plants various bioactive constituents are present the most important constituents are steroids, terpenoids, carotenoids, flavonoids, alkaloids, tannins and glycosides the play an important role in drug development (3). Alkaloids, flavanoids, steroids, saponins, tannins and triterpenoids have different medicinal values such as anti-diabetic, anti-inflammatory, analgesic for central nervous system. the importance of alkaloids, saponins

and tannins in various antibiotics used in treating common pathogenic strength has been reported(9).

In the preliminary phytochemical screening of *Ctenolepis garcinii* (Brum. f)C.B.Clarke found the presence of various phytoconstituents such as alkaloids, glycosides, steroids, saponnins, tannins, cardiac glycosides, coumarins, flavonoids, phenols, phlobatannins, quiones, terpenoids, carbohydrates, proteins and amino acids, and in the observation table mentioned the response to various test in different solvent extract (Chloroform, Methanol, Ethanol, Benzene, Aqueous). The negative responses in all the five solvent extracts were recorded for anthraquione, gum and mucilage's, fixed oils and fats.

Conclusion:-

From the preliminary phytochemical screening of *Ctenolepis garcinii* (Brum. f)C.B.Clarke had revealed the presence of various phytoconstituents such as alkaloids, glycosides, steroids, saponnins, tannins, cardiac glycosides, coumarins, flavonoids, phenols, phlobatannins, quiones, terpenoids, carbohydrates, proteins and amino acids and absence of anthraquione, gum and mucilage's, fixed oils and fats. Among all the five extracts the Methanolic and Ethanolic extracts are more effective and shown the presence of maximum phytoconstituents. These reports may be useful in the isolation and characterization of active phytoconstituents for bioactivity and have great importance as therapeutic agents.

Table:- Phytochemical constituents of *Ctenolepis garcinii* (Brum.f.)C.B.Clarke in different solvent extracts:-

Sr.No	**Constituents**	**Chemical Tests**	**Solvent Extract's**				
			Chloroform	Methanol	Ethanol	Benzene	Aqueous
1	Alkaloids	Dragendorff's Reagent	_	+	+	+	+
		Mayer's Reagent	_	_	+	+	+
		Wagner's reagent	_	_	+	_	+
2	Glycosides		+	+	_	_	_
3	Steroids		_	+	+	+	+
4	Saponins		+	+	+	_	+
5	Tannins		+	+	+	+	+
6	Anthocyanin		+	+	+	+	+
7	Anthraquinone		_	_	_	_	_
8	Cardiac glycosides		+	+	+	+	+
9	Coumarins		_	+	+	+	+
10	Flavonoids		_	+	+	+	+
11	Phenols		+	_	+	+	_
12	Phlobatannins		_	+	+	+	_
13	Quinones		+	_	_	_	_
14	Terpenoids		+	+	_	+	_
15	Gum and mucileges		_	_	_	_	_
16	Fixed oils and fats		_	_	_	_	_
17	Carbohydrates		_	+	+	_	+
18	Proteins and amino acids		+	+	+	+	+

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