A lot of work has been carried out on *Cyperus rotundus*. The details are given below,

Shinde *et al.*, (2012) reported antibacterial and antifungal activity of the extract of *Cyperus rotundus*. Ambarwati *et al.*, (2012) isolated streptomycetes from *Cyperus rotundus* rhizome and reported that it was a good potential to develop a good antibiotics.


Jain *et al.*, (2012) screened petroleum ether, methanol, n-butanol and ethanol extracts of *Cyperus rotundus* for antimicrobial activity against various oral pathogens. They have demonstrated synergistic effects of antibiotics and *Cyperus rotundus* extract. Hamed *et al.*, (2012) studied the antioxidant and cytoprotective properties of these Egyptian *Cyperus* species using cell free and cell-based assays.

Bashir *et al.*, (2012) made a detailed study on the antioxidant activity of *Cyperus rotundus*. Daswani *et al.*, (2011) studied the antidiarrhoeal activity of the
decoction of *Cyperus rotundus* Linn. tubers using representative assays of diarrheal pathogens. The decoction showed antidiarrheal activity.

Bisht *et al.*, (2011) reported the chemical composition and antimicrobial activity of essential oils of tubers of *Cyperus rotundus* collected from Dehradun. Sharma and Singh, (2011) has evaluated the effect of extracts of *Cyperus rotundus* against six pathogenic microbes. They reported that the ethanolic extract was found to exhibit higher activity against bacteria. Seema *et al.*, (2011) had reported that the ethanolic extracts of *Cyperus rotundus* to prevent or delay cataract development by virtue of its antioxidant properties.


Kilani *et al.*, (2008) studied the *invitro* antibacterial, antioxidant, cytotoxicity and apoptotic activities of tuber extracts of *Cyperus rotundus* and it was reported to have good antibacterial activities.

Lemaure *et al.*, (2007), studied the effect of *Cyperus rotundus* tubers (hexane extract on weight reduction by providing the extract for 60 days) A significant reduction in weight gain without affecting food consumption or
inducing toxicity was reported. The extract was able to stimulate lipolysis. The effect in weight gain may be partially mediated through activation of B3-AR. These results suggest *Cyperus rotundus* tuber extract has a potential activity as a herbal supplement for controlling body weight.

Ngamrojana Vanich *et al.*, (2006), reported the inhibitory effects of hexane extracts of *C. rotundus* and *Orthosiphon aristus* and reported a high inhibitory activity on crude enzyme Na+K+-ATPase in rat brain.

Uddin *et al.*, (2006) observed the antidiarrhoeal activity of *C. rotundus*. The methanol extract of *C. rotundus* rhizome, given orally at the doses of 250 and 500 mg/kg body weight, showed significant antidiarrhoeal activity in castor oil induced diarrhea in mice. Among the fractions, tested at 250 mg/kg, the petroleum ether fraction (EF) and residual methanol fraction (RMF) were found to retain the activity, the latter being more active as compared to the control. The ethyl acetate fraction (FAF) did not show any antidiarrhoeal activity.

Natarajan *et al.*, (2006) reported the antioxidant activity of *C. rotundus* and other medicinal plant against free radical induction. The study was focused to evaluate the antioxidant property of individual ingredients in Amrita Bindu against the free radical 1,2–axinobis-(3-ethylbenzothiazoline-6- sulphonic acid) (ABTS).

Duarte *et al.*, (2005) reported the anti-Candida activity of *C. rotundus* and other Brazilian medicinal plants. Essential oils and ethanol extracts from the
leaves and/or roots of 35 medicinal plants commonly used in Brazil were
screened for anti *Candida albicans* activity. Chemical analyses showed the
presence of compounds with known antimicrobial activity including 1,8-cincole,
Geranial, germacrene, limonene, linalool, menthol.

Jagtap *et al.*, (2004) observed the effect of polyhedral formulation
containing *C. rotundus* on experimental models of inflammatory bowel diseases. A
polyhedral Ayurvedic formulation from an ancient authentic classical test of
Ayurveda was evaluated for its activity against inflammatory bowel diseases.

Bamgbose *et al.* (2003) studied the Utilization of tigerunt (*C. rotundus*, L.)
Meal in diets for cockerel starters. The effect of feeding graded leaves of tiger nut
meal (TGN) as a replacement for maize in the diets of cockerel starters on carcass
characteristics and economics of feed conversion was assessed for 70 days. Inclusion of TNG in the diets resulted in feed cost savings of 4.88% (D2), 8.90% (D4) respectively.

Ha *et al.*, (2002) studied the four sesquiterpenes, beta-selinene,
isocurcumcnol, nootkatone and aristolone and one triterpence, oleanolic acid
isolated from the ethylacetolone fraction of the rhizomes of *C. rotundus* and tested
for their ability to modulate gamma-aminobutyric acid (GABA (A)-
benzodiazepinc receptor function by radioligand binding assays using rat
cerebrocortical membranes. Among these compounds, only isocurcumcenol, one of
the newly identified constituents of this plant, was found to inhibit (3H) Ro 15-1788 binding and enhance (3H) flunitrazepam binding in the presence of GABA.
These results suggest that isocurcumenol may serve as a benzodiazepine receptor agonist and allosterically modulate GABAergic neurotransmission via enhancement of endogenous receptor legend binding.

Sonwa and Koning, (2001) observed the minor constituents of the essential of *C. rotundus* have been investigated. The three new sesquiterpene hydrocarbons (-) isorotundene, (-)- cypeera- 2,4(15)- dienc, (-)- norrotundene and the ketone (+)-cyperadione were derived by chemical correlation and enantioselective gas chromatography.

Jeong et al., (2000) observed Rotundines A(1), B(2) and C(3) the three novel sesquiterpene alkaloids from *Cyperus rotundus* with an unprecedented carbon skeleton, were isolated from the rhizomes of *Cyperus rotundus*. The structures of 1-3 were elucidated by spectral by spectral and chemical methods.

Zhu et al., (1997) have evaluated the cytoprotective effects of *Cyperus rotundus* against ethanol induced gastric ulceration in rats. Decoction of *Cyperus rotundus* rhizome when given orally (1, 25, 2.5, 4.0 gm crude drug / Kg) to rats 30 minutes before ethanol (40% v / v, 10 ml / Kg), showed an ulcer inhibitory effect in a dose dependent manner.

Thebtaranonthe et al., (1995) have substantiated the presence of antimalarial sesquiterpenes from tubers leads to the isolation of Patchoulenone, caryophyllene alpha-oxide, 10,12-perpxycalamenene and 4,7-dimethl-1-tetralone. The antimalarial activities of the compounds in the range of GC 50 $10^{-4}$ - $10^{-6}$
M with the novel endoperoxide sesquiterpene 10, 12-peroxycalamenene exhibiting the strongest effect at EC50 $2.33 \times 10^{-6}$ M.

Weenen et al., (1990) have substantiated the anti-malarial compounds containing an alpha, beta-unsaturated carbonyl moiety from Tanzanian medicinal plants. The extracts were obtained from the tubers of *Cyperus rotundus* L.(Cyperaceae), the root bark of Zanthoxylum gilletii (Rutaceae) and the root bark of Margaritaria disco idea (Euphorbiaceae). A mixture of auto – oxidation products of beta-salience was found to be the most active anti – malarial substances obtained from *C. rotundus* (5.6 micrograms/ ml)

Singh and Singh, (1986) have proved a new flavonol glycoside from the matured tubers of *C. rotundus* L. Ethanol extract of the tubers of *C. rotundus* afforded a flavonol glycoside identified as rhamnetin 3-0-rhamnosyl(1-4) rhamnopyranoside.

Gupta et al., (1971) have isolated the active constituents from *C. rotundus* possess antiinflammatory, anti-pyretic and analgesic activity.

However, there is no work on the immune modulating properties of *C. rotundus*. Further there is no work on broad spectrum of antibacterial activity of *C. rotundus*. Also, histological repairing mechanism by *C. rotundus* in organs that were damaged by drugs is not studied so far. Hence in the present study an attention was focused on the lacunae existing in the study of *C. rotundus*. 