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Evaluation of Antiulcer Activity of Fresh Rhizome Juice of "*Curcumma amada*"

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ABSTRACT

In this study, the operation of fresh *Curcuma amada* rhizome juice was administered studying the antiulcer results orally. Toxicity experiments on albino rats over a period indicate no morality at a dose of 2ml / kg Duration: 14 days. In the rats, no significant was seen during the study. This assist in predicting this It contains no toxicity whatsoever and is completely healthy. So 2 ml/kg b.w fresh (1/10th dose) Juice of that dose was chosen for further analysis. The comments suggested the long-term. The extract administration had no negative impacts on the pets' general health. No Important variations in body weights or in animal food intake were observed. Thus, this formulation can be medically used. The animals had ethanol-induced ulcer Aspirin and the ulcerated pets were handled with fresh juice at a dosage of 2ml / kg Standard oral pantoprazole prescription.

INTRODUCTION

Peptic ulcer just as other acidic indications influences up to 10 percent of individuals with enough seriousness to empower casualties to look for clinical consideration. The more serious ailment requiring clinical fuscous is ulcer and gastroesophageal disease[1].*Around 4 million individuals in the US have peptic ulcer and many new patients are analyzed every year, approximately 170 thousand individuals are introduced to the emergency clinic and treated with drugs, and almost 5 thousand patients pass on every year from ulcer. Human life expectancy having a peptic ulcer is around 10 rate focuses for Americans guys and four rate focuses for females.*[2]Peptic ulcers are caused in injuries which are most generally influenced in the number of inhabitants in more youthful to more established individuals, even though this can be recognized in grown-up life. In some cases they happen with no clear sign and impact, following a time of days to long periods of dynamic illness measure, it can recoup with or without medicate treatment. This likewise influences bacterial H diseases. It's Pylori.

The accompanying statistics identify with the predominance of peptic ulcer.

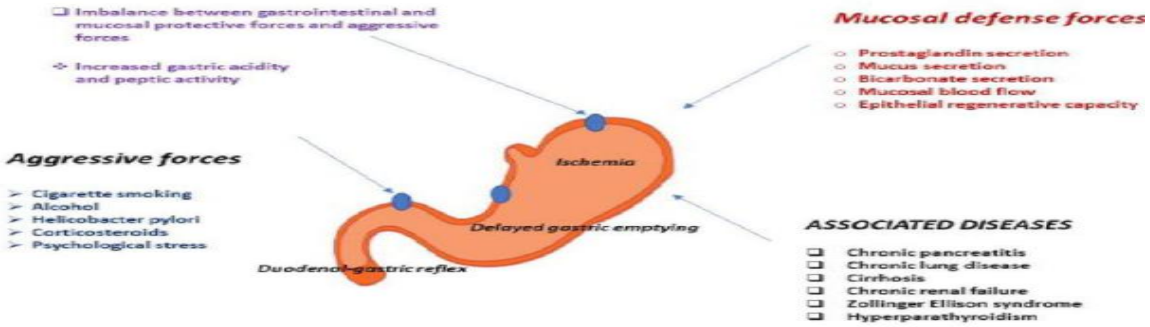

Table 1- Peptic ulcer prevail:

Region	prevalence	Estimated population used
Australia	377,050	19123,122
Canada	595,581	32,507,889
India	19,578,503	1,065,070,607
Russia	2,646,71	132,975,95
USA	3,399,044	293,655,98

ULCER(Peptic):

Ulcers are bruises that develop stomach cover, below esophagus, and small digestive tract. Peptic ulcer is bruising that lines in the stomach cover, (theduodenum) usually due to inflammation caused by the H.pylori microbes, as well as from disintegration from stomach acids. A peptic ulcer is a fairly normal medical condition.

Gastric sores: ulcers produced within the stomach. Esophageal sores: ulcers that makeup inside the mouth. Duodenal sores: ulcers that produce small digestive tracts in the upper region, called the duodenum.

Symptoms of ulcer(peptic):

The most well-known manifestation of a peptic ulcer is consuming torment of stomach that stretches out from the chest navel, that can extend from mellow to extreme.Minute peptic ulcer may not develop any manifestations in the early phases.

Some normal indications of peptic ulcers involve:

1 Hunger shifts

2 Breakout

3 Bloody or stinky stools (melena)

4 Weight loss unaccounted for

5 Indigenous

6 vomit

METHODS SCREENING TO ANTIULCER OPERATION:

1) SHAY rat:

Vomitin Such model is a simple & and display technique for enlisting gastric ulceration in the rodent through the locale of the pylorus; stomach ulceration is affected by acidic juice collection within the stomach. Ulcer file and pH of the handled creature's gastric substance are contrasted and gatherings regulated. In this technique, it is possible to estimate various aggregate gathering organization followed by part-reaction bends base for the production of ulcers.

Method: Wistar (Female) rodents weighing 140-160 g are hungry t0 45 hours approaching drinking water which is not mandatory. Six creatures are used per serving and as gatherings for power. Under mellow ether sedation at the midline of the stomach an entry point is made. By using little nylon, the pylorus is shut down, the higher management is required to keep a strategic distance from the vein damage within the pylorus locale. It is important to fastidiously maintain a strategic distance from getting a handle on the stomach with instruments; otherwise, ulceration at such focuses would be permanently produced. The divider in the stomach is stitched through surgery. The test is administrated through oral ingestion or infused subcutaneous course.

Methods of embolization stress: Collections of 5 Wister rodents are used for each portion of the test medication and weighing 140-160 g. Food and water are removed 24 hours before the exploratory process. These creatures are suspended for one day on a level plane in a dim room at 20oC and the last creatures are abandoned in the technique of CO2 sedation.

Procedure: It uses 8-11 Wistar rodent assemblies weighing 140-150 g. The rodents are placed vertically in singular restriction confines in water at 22oC for 60 minutes after oral organization of the test aggravated. These are removed, allowing blue injectevans (30mg / Kg) to be intravenously dried via tail vein. After ten minutes, these creatures are relinquished by CO2 sedation, stomachs were collected about 24 hours in Formol-saline (2 percent v / v) for short-term stockpiling. After that the stomachs are opened the more prominent arch, washed with hot water and examined by 3-overlay magnifier.

Hg.

Tests of Peptic Ulcers:

There are two types of measures for diagnosing a peptic ulcer. They are called series upper endoscopy and upper gastrointestinal (GI).

Endoscopy: In this procedure, your important consideration doctor inserts into your stomach and little stomach-related plot along the tube with a camera down your throat to take a gander for ulcers in the area. Similarly this instrument helps your doctor to have tissue samples available for evaluation.

Not every single case needs an upper endoscopy. This approach is therefore recommended for people with a higher risk of stomach injury. This brings together people over the age of

45, similar to the people who experience: Anemia (a low number of red platelets)

Weight misfortune

GI dying

Problem gulping

Treatment Peptic Ulcer:

Treatment would depend on your ulcer for the simple purpose. In the off chance tests prove you got an H. Your doctor will prescribe a combination of medications for pylori infection, which you can take for about fourteen days. The medicine recalls anti-microbial to help slaughter fections, and proton siphon inhibitors (PPIs) to help reduce the corrosion of the stomach. You can experience mild reactions from the anti-infection regimens, such as runs or irritated stomach. Converse with your primary care physician in case these symptoms cause considerable difficulty or display no signs of change after some time. In case your primary care doctor determines you have an H. Pylori disease, they can prescribe a medication or over-the-counter PPI, (e.g., Prilosec or Prevacid) for about two months to decrease the corrosive stomach and help the ulcer heal. Acid blockers (like Zantac or Pepcid) can also reduce the pain of corrosive stomachs and ulcers. These medications are used as a treatment, often in lower doses over the-counter

NATURAL REMEDIES:

The two drugs may have a gastro-defensive effect due to a decrease in gastric motility. They trigger roundabout muscles to unwind and by smoothing the folds will ensure gastric mucosa. This will extend the mucosal area that was provided to narcotics operators and increase the volume of rugal peak gastric specialists. Such activity was hypothesized for assuming a job in prostaglandin cytoprotective effect. Capsaicin is one of the most interesting substances that was derived from stew peppers and present in zesty plants, e.g. ginger or dark pepper. This substance follows up on tangible neurons to reinvigorate their film receptors, primarily vaniloid (VR)-1 receptors, and deliver various kinins, such as P. When introduced in a huge portion of capsaicin, specifically C-fiber neuronal ends are annihilated causing the inactivation of tactile nerves and the weakening of all the reflexes in which those nerves are involved[61]. Chamomile is a spice that has been used as peptic ulcers, and the doctor will also test the stomach for this infection.

Complications of a Peptic Ulcer:

Untreated ulcers can get worse over time and lead to other, more severe health problems, such as:

Perforation: A defect forms in the lining of the stomach or small intestine and induces an infection. Sudden, intense abdominal pain is a symptom of a perforated ulcer.

Internal bleeding: Bleeding ulcer screening results in substantial blood loss and often requires hospitalization. Bleeding ulcer symptoms include light headiness, dizziness and black stools.

Scar tissue: This tissue becomes thick and grows after an injury. This tissue, through your digestive tract, makes food to pass hard..

PROFILE OF PLANT:

Fig: CURCUMA AMADA

VERNACULAR LANGUAGE NAMES

Bengali: AamaaAadaa, Malayalam:Mangayinji, Gujrati: Aambaahaldhar, Sanskrit: Amragandha-haridra, Unani: Aamba Haldi, Daarchob, Telugu: Mamidi Allamu, Hindi: Aamaa-haldi, Amiyaahaldi, Kannada: Ambarasini, HuliArsin Marathi: Aambehalad, Ambaahalad Punjabi: Ambiyahaladi Tamil: Mankayyinji

DETAILS

Mango-ginger appears like plain ginger but it does have some sort of coarse mango. It is the Curcuma amada tree rhizome and has a role with the Zingiberaceae family, class Curcuma. The genus Curcuma comprises more than eighty varieties of rhizomatous spices. Indian

Arrowroot (starch used), Wild Turmeric, Turmeric, Karchura are a therapeutic plant segment with a family role in the Curcuma. Mango-ginger develops mainly in Gujarat in India, wild in parts of western Bengal, Uttar Pradesh, states of karnataka[87.]

Ayurvedic Attributes and Body Behavior

In Ayurvedic system of medicine, Mango-ginger is utilized in treatment of skin tingling, injuries, hack, respiratory ailments, hiccups, fever, aggravations, and ear torment and in vitiation of all tri-dosha

Rasa (Taste): Tikta/Bitter,

Guna (Characteristics): Light

Virya (Potency): Cool

Vipaka (Post Digestive Effect): Pungent

Action: Improves processing and craving, Kapha-har, Pitta-har, increment virility; sexual enhancer[88]

Medicinal Uses OF Mango-ginger

Mango-ginger, in Ayurveda, is known as Amra Haridra or Karpura Haridra. It is used for pickling as well as for flavoring. Like various persons from family curcuma, it has similarly different supporting properties and is particularly important in fights related to the stomach. Its use of stomach gas provides prevention.

AIM: To assess curcuma amada antiulcer disease.

OBJECTIVES:

- Appraisal of curcuma amada antiulcer operation.
- Assessment of the *curcuma-amada* extract.
- Dose based research.
- Time based research.
- To figure out what impact *curcuma amada* extract has on various parameters.

WORK PLAN : The planned work plane was executed in the following phases:

Phase 1

- A review of literature

Phase 2

- · Archive of raw materials and herbal products.

Phase 3

- Preliminary phyto-screening.
- Toxicological Test
- severe toxicity

Phase 4

- Pharmaceutical assessment

Antiulcer Impact

Phase 5

Compiling data and closing

METHADOLOGY

CHEMICALS:

The entirety of the synthetic substances and reagents utilized in the examination were of explanatory quality and were gathered from legitimate Indian providers.

SELECTION AND PLANT AUTHENTICATION

Curcuma amada was taken from the CIMAP in Lucknow of India.

The dried whole plant powder of *Curcuma amada* was supplied

PHYTO CHEMICALSCREENING[93].

The plant might include the accompanying synthetic compounds like protein, starch, and

lipids. That is utilized as food by individuals. It additionally incorporates synthetic concoctions, for example, Tannins, glycosides, alkaloids, Volatiles oils. The exacerbate that assume a pivotal job for bunches of therapeutic properties.

CARBOHYDRATES TEST:

Molish test:

The powdered of model was consolidated with 1 ml of alpha napthol game plan close by conc Sulphuric destructive course of action in the test tube blushing concealing was made at the crossing point between 2 liquid this is shows the closeness of sugar.

Fehling test.

The specimen powder was given both the Fehling A and Fehling B plan and put for a satisfactory time in the water shower. It shows the concealing square red. This shows the Carbohydrate proximity.

Benedicts test.

Include 8 drops of benedict reagents to the example powder, and overwhelmingly heat up the example for 5 min, indicating the red ppt. This demonstrates starch presents.

ALKALOIDS TEST

A small amount of stored powder (sample) was taken and a few drops of hydrochloric acid were applied and filtered. The filtered one was checked with various alkaloid agents,

Mayer’s reagents:

Apply modest quantities of Mayer's reagent to a modest quantity of the above channel to shape the cream accelerate. This demonstrates alkaloids are available.

Dragendorffs reagents

A modest quantity of Dragendorffs reagents is applied from the above channel and it frames an orange earthy colored acceleration. This shows alkaloids present.

FLAVONOIDS TEST

Apply 5 ml of depleted alkali solution to extract tank from the plant and start by adding concentrated corrosive sulphuric. It forms yellow, a shading. It indicates removal demonstrated association with flavonoid.

STEROIDS TEST.

Salkowaski test:

Few plant extracts have been combined with chloroform, and the same amount of sulphuric acid has been added. The chloroform layer has a cherry-red color. It means the sample contains hormones.

Libbbermann burchatd test:

The extract is dissolved in 10 drops of acetic acid and conc, 2 ml of chloroform. Added sulphuric acid. Now the solution turns to a reddish colour, then turns to bluish green. This shows the presence of steroids indicated by plant extraction.

TANNINS.

With vanillin hydrochloric acid reagent is prepared from only a few amounts of plant extract. Because of the formation of phloroglucinol it produces pink or red colour, suggesting the presence of tannins.

PROTEIN TEST.

Mellon’s reagents.

Mellon's reagents (mercuric nitrate in nitric corrosive with a hint of corrosive nitrous) usually yield white opportunities for expansion into a protein structure that turns red on heating.

Test OF Ninhydrin.

From the specimen arrangement involve 2 drops applied to the concentrate and heating a freshly arranged 0.2 percent ninhydrine reagent. Advancing the blue shading that display the peptide, amino corrosive (PROTEIN) closeness.

TEST GLYCOSIDES:

Test of Keller- killani.

From the little amount of powder acidic corrosive was broken up and included hardly any drops of ferric chloride and moved to the outside of conc Sulphuric corrosive. At the intersection, ruddy colored shading was framed, which slowly becomes blue shows the presence of heart glycosides.

SAPONINS TEST.

Test of Foam:

From the sample, the arrangement involves 2 drops applied to the concentrate and heating a freshly arranged 0.2 percent ninhydrine reagent. Advancement of blue shading that displays the proximity of peptide1 ml of extract solution is diluted separately with distilled water to 20 ml and shaken for 15 minutes in a graduated cylinder. The presence of Saponins, amino corrosive (PROTEIN) suggests a 1 cm layer of foam.

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II- PHARMACOLOGICALSCREENING ANIMALS

The pale skinned person rodent (normal body weight 200-300g), used from in house research center. The creatures were kept up under normalized natural conditions (22-28oC, 60-70% relative moistness, 12 hr dull/light cycle) in creature house, Department of pharmacology,RVS College of Pharmaceutical Sciences, sulur, Coimbatore. The creatures were given standard mouse chow and water not obligatory.

Fixation OF Dose [94]

METHODS

Guideline:	OECD – 420-fixed dosemethod
CPCSEA Reg.No:	1012/c/06/CPCSEA
Test:	Limittest
Species:	*Rattusnorvegicus*
Strain:	Albino Wistarrats
Number of animals:	05
Sex:	Male/female
Initial dose:	2ml/kg
Route of administration:	Oral
Duration:	3hr close observation, followed by 14 days observation

	:	Body weight, water intake, mortality status
Elements	:	ANS, CNS & changes in behavioral
Blood collection	:	Not needed
Sacrifice	:	On 14 days after administration orally

TABLE: 03

INVESTIGATIONAL ARCHITECTURE FOR TOXICITY PRACTICAL RESEARCH

Groups	**Conc.(mgkg^{-1})**
First	10
Second	60
Third	400
Fourth	3000

RESEARCH DESIGN:

Test animal – 6-9 weeks retract Wistar rats of females and males, nulliparous and non-pregnant species were picked from the College of Pharmaceutical Sciences, and modified for multi-week earlier dose. Conditions of residency

Temperature – OECD rule 425, 2001 maintained room temperature of the test creature at 22 ° C±3 ° C. Such ranges are meant to allow homeotherms to maintain the metabolic rate or to be within their impartial thermo zones. Since temperature below the prescribed range prompts expanded food consumption, increased vitality utilization has yet decreased productivity. In contrast, temperature above the recommended range induces reduced food intake, reduced weight and decreased vitality use. With temperature, the toxicity can change. Will increase with temperature linearity.

Humidity The relative mugginess kept up at 40 percent - 60 percent doesn't ideally surpass 70 percent (OECD-425, 2001). The relative mugginess underneath the suggested range may

create sores, for example, ringtail and may build food utilization.

Light – 11-12 hours, dark/light period. Good lighting and light cycle play a significant role in maintaining the physiology and actions of rats. Neuroendocrine offered adequate vision and regulation of the diurnal and circadian cycles (CPCSEA guidelines for laboratory animal facilities, 2003).

Light intensity – The light level was maintained at 325 lux, about 1 m above ground. Consideration of differences in light intensity is critical to place animals on cage rack for toxicology analysis.

Caging – Cages of polypropylene, with sturdy foundations and walls. Lids made from steel grill which can accommodate both water and food.

Feeding condition – Sterile laboratory feed (*ad libitum*) and RO water bottles daily.

Feed – Brown colored chow diet

Drug administration – Animals were fed on day 0 for 12hours before dosing. Control rats were given orally using a curved and ball-tipped stainless feeding needle with an acacia solution of 20 per cent.

Clinical observations – All rodents in the wake of dosing were persistently checked for poisonous indications for 4 hours. Creatures and any extra social or clinical indications of harmfulness were observed for the remainder of the 14-day study period. The body weight of the creature was measured before dosing and on days 7 and 14.All creatures were killed and LD50 morale was built up towards the end of the investigation. It was achieved with clinical understanding and gross neurotic examination. Ethanol triggers stomach ulcer.

Both sex (150-200 g) Albino Wistar rats are divided into 5 classes of 6 animals each. They are kept in single cages and fasted for 24 hours, allowing free access to drinks

Hot. Beware of maintaining a strategic distance from coprophagy. Ulceration was introduced by the organization of 80 percent ethanol orally in a portion of 1ml for each rodent in 36 hours without taking care of the rodents. Test and Standard is given for each rodent stage, one hour before ethanol organization. After two hours of ethanol organization, harming CO2 can yield to animals. The stomach is measured, opened along the more prominent bend and in an axis tube the material is depleted and has been centrifuged for 10 minutes at 1000rpm and the

volume is noted. Using a pH meter the pH of the gastric juice is recorded. At that point, the material is revealed for nothing and utter causticity to be tested. The glandular part of the stomach is then washed with running water to search for ulcers. The quantity of ulcers per stomach is noted, and the severity of the ulcers is scored minutely with 10x focal point support.

ASPIRIN TRIGGERS ULCER:

Table 2- Time-based studies:

SI NO.	Medicine	Concentration	ANIMALS	TIME	STUDY PARAMETERS
1.	Water as Control	----------	8	17days	1. index of Ulcer 2.Whole acidity 3.Acid volume 4. pH 5.Glutathione 6.whole protein
2.	Standard (pantoprazole)	1.5mg/kg	8	17days	
3.	Fresh juice	2 ml/kg	8	17days	
4	Control (water)	---------	8	29days	
5.	Standard (pantoprazol e)	1.8mg/kg	8	29days	
6	juice	2.5ml/kg	8	29ays	

1. **index of Ulcer**

2. Animal in the ethanol-triggered ulcer community had exposure to drinking water ad libitum for 36 hours starving to death.

3. 3. Oral administration will be 1 ml of 80 percent ethanol. One group is given

pantoprazole, and the other groups are given fruit juices 1 hour until ethanol administration.

4. Animals will be killed by an excess dose of ether after 2 hours of ethanol administration.

5. The abdomen was separated and fitted to a cork board, and the numbers and extent of ulcers were reported using the following scores with a stereo-microscope.

6. Score on seriousness:

0 = Standard stomach color.

0.6 = Red Colouring 1.0 = Ulceresse spot

1.6 = Hemorrhagic streaks 2.0 = Ulcers ≥ 3.0 but ≤5.0

3.0 = ulcers > 5.0

Calculation:

The index of ulcer is calculated using the appropriate formula;

$BI = BN+BS+ BP \times 10^{-1}$

Where,

BI = index of ulcer

BN = an usual amount of ulcers per pet

BS = Mean intensity score

BP = animal bothered ulcer (%)

1) total acidity

Principle:

A known measure of gastric buildup with 0.1 N sodium hydroxide was titrated to a pH of Figure. If pH meter isn't usable, include two drops of Topfer 's reagent that move to a salmon shading while at the same time killing the entirety of the free hydrochloric corrosive. All things considered, the complete corrosiveness was determined by the utilization of phenolphthalein as a marker by titration.

Reagents:

(a) **(0.1N NaOH):** Stock (0.1N NaOH) was weakened ten-fold. On the other hand, 4g of NaOH was broken down in new refined water and made up to 1000 ml.

(b) **(1% alcoholic phenolphthalein):** phenolphthalein(1g) was broken down in 100000 ul of 95% liquor.

(c) **0.5% alcoholic solution:** Reagent Topfer's (0.5g) was broken up in 98 ml of 95% liquor.

(d) Procedure:

10 ml of the gastric acid sample was moved to an evaporating porcelain platter.

1. 1-2 drops of Topfer's reagent is added.

2. 2. A color shift has been observed; where free hydrochloric acid is present, a bright red color appears. 1-2 drops of phenolphthalein and the Topfer reagent were applied to the gastric juice.

3. 3. Titrated from a desk with 0.1 NaOH, mixing was done after each addition until the last trace of red color disappeared and a canary yellow color was replaced.

4. The numbers of milliliters of NaOH used was read from the burette. This represents the amount of free hydrochloric acid.

5. The titration was continued until the red colour of phenolphthalein appeared (deep pink), titrated to the point at which the further addition of alkali did not deepen the colour.

6. Reading was taken (ml NaOH) for total acidity.

Calculation:

Y = ml of 0.1 N NaOH x 10

Where,

Y= Total acidity (mEq/L)

2) Acid volume

Procedure

1. Animals in the ethanol-induced ulcer community had exposure to drinking water ad libitum for 36 hours starving to death.

2. Oral administration will be 1 ml of 80 per cent ethanol. One group is given pantoprazole, and the other groups are given fresh juice 1 hour before ethanol administration.

3) After 2 hours of ethanol treatment, animals will be killed by overdose of ether.

3. pH

Procedure:

1. Animals in the ethanol-induced ulcer community were deprived to drinking water ad limits for 36 hours.

2. Oral administration will be 1 ml of 80 percent ethanol. Pantoprazole is administered 1 hour before ethanol administration to one group and Curcuma amada juice to the other groups.

3. After 2 hours of ethanol administration, animals will be sacrificed by overdose of water.

4. Oral administration will be 1 ml of 80 percent ethanol. Pantoprazole is administered 1 hour before ethanol administration to one group and curcuma amada juice to the other groups.

5. For 10 minutes the tubes were centrifuged at 3000 rpm and the centrifuged samples were decoded and analyzed for pH (using a digital pH meter, Type DPH-100- Data instruments).

4) Estimation of glutathione[101]**Reagents**

DTNB reagent (5-5 dithiobis-2 nitrobenzoic acid): 39.6 mg of DNTB dissolved in 100 ml of 1

% of sodium citrate solution. **Trichloroacetic acid (TCA).**

Procedure:

By scraping with a blunt knife, the mucosa of glandular stomach was removed and 10 per cent homogeneous was prepared. The homogeneous was precipitated and centrifuged with 25

per cent trichloro acetic acid (TCA). Using freshly prepared DTNB solution, the supernatant was taken for estimation at GSH. Using freshly prepared DTNB solution, the supernatant was taken for estimation at GSH. For each sample to run without reagent, the strength of the yellow color produced was read at 412 nm parallel blank.

Calculation:

The concentration of Glutathione was assayed using molar extinction coefficient. Calculate the enzyme activity by the following formula:

$$A = Є. b. c$$

Where,

Є = molar extinction coefficient.

A = Absorbance

b = Light path length

c = absorbing solute Concentration.

5) Estimation of total protein

Biuret method: This method is easy to follow and provide accurate results.

Principle:

Peptides react with a solution of alkaline copper tartrate to give a complex of violet colour. The strength of the final color distortion is measured calorimetrically at 540 nm, and is proportional to the total protein concentration in the test specimen. This method will prove to be very useful under closely regulated conditions but the solvents must be prepared in advance.

Reagents:

a) Working biuret solution.

(b) Saline (NaCl, 0.85%w/v in water): 8.5 grams of sodium chloride was broken up in about 800 ml of water and placed in a one liter volumetric container. The system was lifted to the 1000 ml mark with water and blended by reversal. The arrangement was held in a glass

bottle which had ended.

(c) Standard protein solution: The mean concentration of the protein was between 6 and 8 g per 100 ml, respectively.

Procedure:

1. 1. Test tubes were established for test, normal and blank respectively, labelled as T, S, and B.

5 ml of working Biuret reagent was pipetted out into the above test tubes.

2. 100µL sample & standard was introduced in T & S tubes, and 100µL of water in B tube.

3. Ingredients were blended properly & incubated at 37^0C for 16 minutes in a hot water bath or at room temperature for 29 minutes.

4. OD of the test & standard was calculated towards the blank at 540nm. The data were accomplished within 1hour.

Calculation:

Whole protein in test sample (gdL^{-1}) = (OD_t/OD_s) * 6

Where,

OD_t = Absorbance of test

OD_s = Absorbance of standard

RESULT & DISCUSSION:

PRELIMINARY SCREENING OF PHYTO CHEMICAL.

Rhizome of *Curcuma amada* juice was oppressed by different substances tried according to the standard strategies for the ID of the different constituents. The outcome of this phyto compound investigation is recorded below.

Table 3- Screening of Phytochemical of *curcuma amada* rhizome juice

CONSTITUENT OF PLANT	INFERENCE			
	Acetone	**Methanol**	**Ethanol**	**Chloroform**
Alkaloids	+	+	+	–
Carbohydrate	+	+	+	+
fixed oil	+	+	+	–
Flavonoids	+	+	+	+
Glycosides	+	+	+	+
Proteins and amino acids	–	–	–	–
Tannins	+	+	+	–

STUDY OF PHARMACOLOGY

STUDIES ON ACCUTE TOXICITY

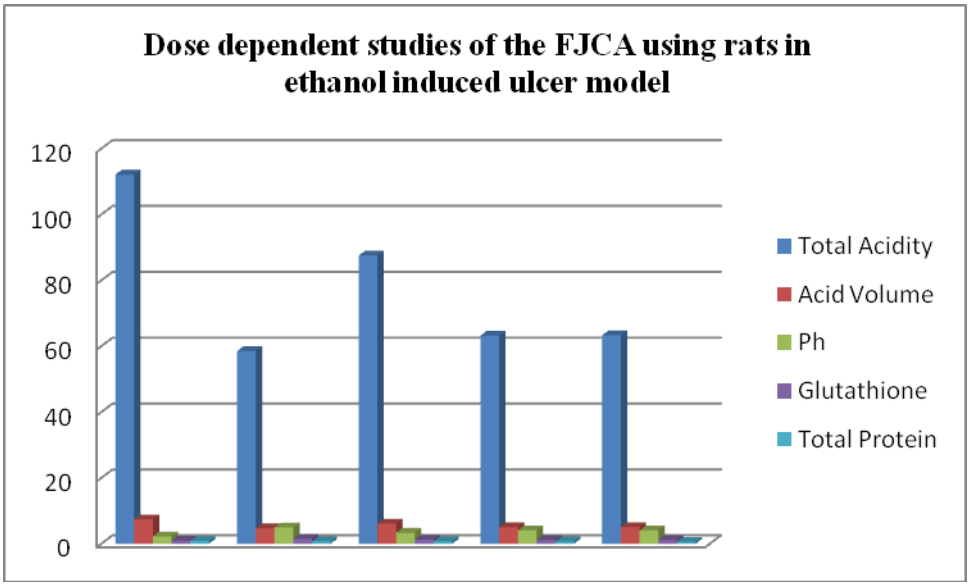
Table 3 shows the subordinate impact portion of FJCA. The antiulcer effect of new curcuma amada squeeze (FJCA) has been found to have increased with portions expanding. The most extreme consequence was seen at 2ml kg^{-1} weight of the body to ethanol Administration resulted in severe erosions.

Table 3- Dose based studies of FJCA employing ethanol triggered ulcer model rat model

S.No	Treat.	Animal No	Concen.	Indexing of Ulcer	Acidity (m Eq/L)	Volume of Acid (ml)	pH
1	Control (water)	6	-	10.80±0.30	110.1±1.13	7.30±0.21	3.2±0.10
2	Pantoprazole	6	1.5mg/kg	5.80±0.42**	56.5±0.84**	4.79±0.33**	9.9±0.16**
3	FJCA	6	1.5ml/Kg	7.50.00±0.28	90.5±0.22*	6.25±0.11*	7.32±3.05
4	FJCA	6	2ml/Kg	5.90±0.004*	67.2±0.516*	5.03±0.09*	5.05±4.77**
5	FJCA	6	4ml/Kg	7.65±0.11**	60.3±0.21**	5.01±0.04**	3.02±3.33**

Nonetheless, the FJCA diminishes the seriousness and occurrence of gastric disintegrations in C_2H_5OH treated creatures. Ulcer record of gathering I creatures that filled in as water as control was 11.85±0.30. The ulcer file for bunch III (100mg/kg), bunch IV (200mg/kg) and gathering V (400mg/kg) was 8.55±0.28, 5.39±0.21, 1.84±0.11 individually. the reference standard (bunch II), Pantoprazole, had an ulcer record 4.80±0.42 as appeared in Table

Figure 1- Dose relay work of the FJCA employing rats in ethanol triggered model of ulcer



S. No	Treat.	Animals No	Conc.	Treatment time (days)	Index of Ulcer	Acidit y (mEq/)	Volume of acid (ml)	pH
1	Water as Control	8	-	15	11.3±0.42	105.00 ±3.13	8.01±0.421	2±0.06
2	panto azole	8	1.7ml/k g	18	4.75±0.48	55.00± 0.95**	4.18±0.22**	4.3±0.02**
3	FJCA	8	2ml/kg	15	3.49±0.11	45±0.45*	4.08±0.08	4.09±0.05#

4	Control	8	-	30	11.8±0.30	102±0.44**	7.53±0.06	2.1±0.09
5	pantoprazole	8	1.8ml kg^{-1}	29	3.74±0.02	54.5±0.22**	3.70±0.02	4.5±0.06**
6	FJCA	8	2ml/kg	30	0.50±0.12	49±0.22	3.55±0.02*	6.2±0.02**

Time dependent studies:

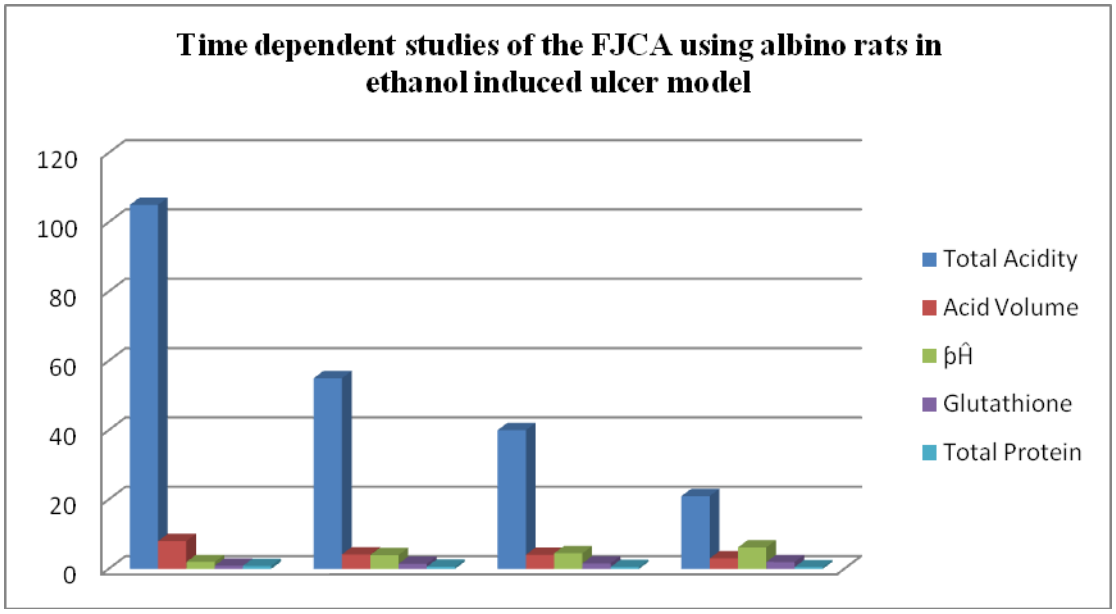
Ethanol Induced Model

Table-Time dependent studies of the FJCA using albino rats in ethanol induced ulcermodels

FJCA-fresh juice of *curcuma amada*

**P<0.001, *P<0.05, compared with control.

Figure 2- Time dependent studies of the FJCA using albino rats in ethanol induced ulcer model



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