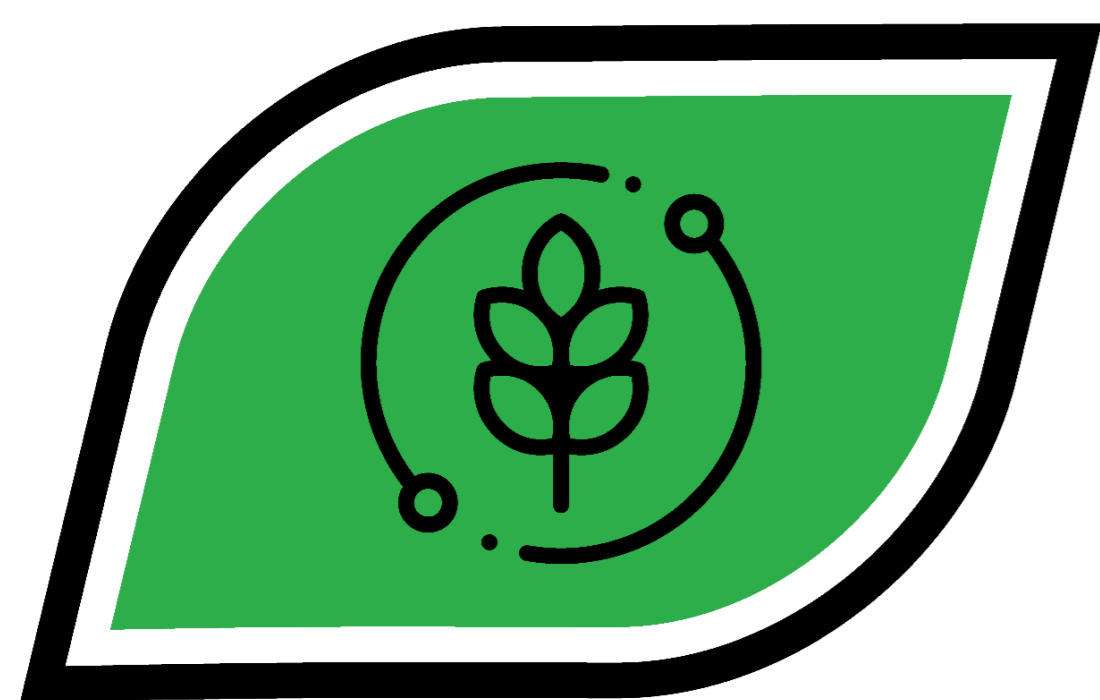


ADVENTURES OF CASSAVA

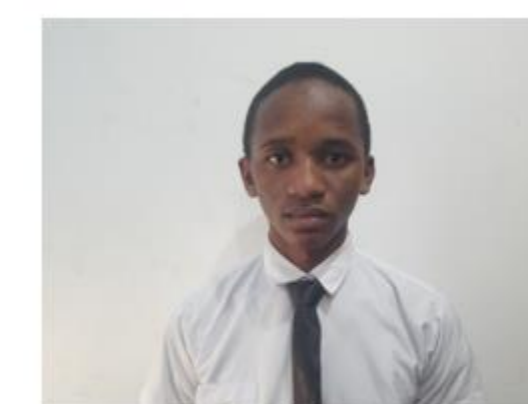
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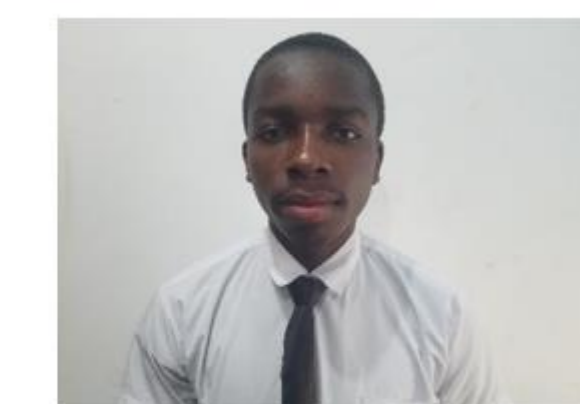


Introduction

When i was in holiday i visited my friend in songwe .But his nephew was lamenting that she had stomach ache, then we advice her to go to the hospital .After attending the hospital, it observed that she has stomach ulcers.From the fact that her family can not able to afford the hospital medicines, her mother advice her to use cassava juice for seven days,then after ; i wondered to see that she is doing well. After return back to school i aimed to conduct a research with my friend in order to know causes of peptic ulcers ,at what extent this problem affect people,and what is the suitable solution to this problem. In order to know at what extent this problem affect people we aimed to use random sampling research by using questionnaire method.



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Method

We construct five (5) pieces of question then we provide random to 30 students:

List of question are as following;

- Do you have any historical back ground of having peptic ulcers ?
- if yes ,for how long have you faced with this problem?
- Have you noticed what were the causes?
- To what extent this problem affected you?
- Which medications have you taken?

After that,we collect pieces of questionnaires which we gave to (30) student,then we come up with the following deduction;

(A)out of 30 student 11 student having historical back ground of having peptic ulcers.

(B)we noticed that peptic ulcers are mostly caused by a bacteria called helicobater pylori under the following action;

Poor eating habit
Alcoholism



Results

The followings are the materials which we used in a traditional method .

Bucket.

Clean water.

Kitchen gloves.

Sunlight.

Fresh cassava roots.

Knives.

Below are traditional ways which we used so as to make cassava safe and alkaline.

to make cassava safe and alkaline we fistly did a traditional method detoxification) as illusrated below:

Harvesting and peeling;we harvested cassava or purchased cassava roots and we weared glovesbefore to peel them ,then we pilled them so as to remove the brown stain.the aim of wearing gloves was if you may be have a sensitive skin as some cassava variety may cause skin irritation.

Grating/cheaping;then after we cut them using knife into small pieces.

Soaking;then the cheaped cassava placed into bucket followed by addition of water covers the cassava completely,the water will help to remove cyanogenic glycosides.

Fermentation;then after soaking cassava for atleast 2 to 3 days,during this time we used to change water daily so as to accelerate the detoxification process.

Rinsing;after the fermentation process we drained the water and rinse the cassava throughtly to remove any remaining toxins.

Drying.the fermented cassava is spreaded out in the sun to dry for a short period which help to reduce the moisture content.

We did those procedures above because the freshly extracted cassava juice without any additives typically has a ph range of 5.5 to 6.5 , which is slightly acidic to neutral.

Then after titrating a solution of cassava against dilute hydrochloric acid and Lemon juice the followings data were obtained

a)When few drops of methyl orange indicator were added into cassava solution it turns yellow and titrated against lemon juice it turn orange .if in excess it turns to red .this means, there is neutralization reaction. The result were the same when cassava titrated against hcl with normally as pain in stomach.

b)From biological point of view,stomach there is secretion of hcl acid.this is one of which when in excess ,leak out back to oesophagus.hence,neutralization was tested using local herbs so called cassava solution ,its colour changed from yellow to orange.

c)During titration ,the titre value was observed to be roughly 0.266ml.this means that cassava solution is strong base that is why although it is local solution ,but is efficient for neutralization of acid content.

d)Then after obtaining that cassava juice is a strong base that can neutralize the hydrochloric acid found in the stomatch since cassava is also a local food which does not have any side effect when taken.so we took twenty(20) people with stomach ulcers case,the we divided them into three groups namely group a ,b and c.

Group a;

This group was comprised of five patients then we did not give them cassava juice.then their condition was still worse as the day goes.their results are interpreted by the graph below

Conclusion

As observed from the above experiment ,cassava solution which is a local herb can neutralize acidic condition.so ,when taken by human being having peptic ulcers ,it efficiently neutralize acid (hydrochloric acid) and hence bring relief to the patient .what happen in the body is not narrative believes but natural event that can be scientifically proved .as it was done in this project..

Experiment	Pilot	1	2	3
Final volume	0.50	1.10	1.60	2.20
Initial volume	0.00	0.50	1.10	1.60
Volume used	0.50	0.60	0.50	0.60

Experiment	Pilot	1	2	3
Final volume	0.20	0.50	0.70	1.00
Initial volume	0.00	0.20	0.50	0.70
Volume used	0.20	0.30	0.20	0.30

