

A SINGLE CASE STUDY ON EFFICACY OF BILVADI AGADA IN FOOD POISONING

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ABSTRACT

Food poisoning is a serious condition develops due to consumption of unhygienic, rotten, spoiled and cooked unhygienically with various combinations that are not proper. After consumption of such food it develops sickness or serious illness in single or mass of consumers. The cause for same is microbes or other harmful things in the food or beverage. Symptoms of food poisoning often include upset stomach, diarrhea, vomiting, fever, abdominal pain, myalgia etc. Symptoms usually start within hours or several days of consumption of food. Most people may show mild illness and get better without treatment but sometimes food poisoning causes severe illness or complications that

may be life threatening. Usually the treatment in modern is as per the symptoms and use of antibiotics. In Ayurveda a vast concept of viruddha ahar is mentioned by acharyas with regime of food consumption. Dushi visha and gara visha are the terms which developed due to this virudha ahara and due to contamination of food. Various preparations are available to treat this poisoning cases among that bilvadi agad is one which is commonly available. In present case I studied the effect of drug in known case of food poisoning.

KEYWORDS: Food poisoning, Bilvadi agad, Bivadi gutika, Virudha Ahara, Dushi Visha, Gara Visha.

INTRODUCTION

Food is one such thing that is essential and a daily need for all living beings. Food always nourishes body when it is consumed, cooked and stored properly. But when these things related to food is not followed then there are the chances of getting contamination in the food; some time food can be contaminated at any point from the farm, poultry, slaughter house, or

fishery to the table. The problem can begin during growing, harvesting or catching, processing, storing, shipping, or preparing. Food can be contaminated any place it's handled, including the home, because of-

- Poor handling
- Poor hand washing.
- Feces that remain on the hands after using the toilet can contaminate food.
- Other contaminants can be transferred from hands during food preparation or food serving.
- Not disinfecting cooking or eating areas.
- Unwashed knives, cutting boards or other kitchen tools can spread contaminants.
- Improper storage.
- Food left out for too long at room temperature can become contaminated.
- Food stored in the refrigerator for too long can spoil.
- Food stored in a refrigerator or freezer that is too warm can spoil.

Common causes of food poisoning are microbes

- Bacteria.
- Viruses.
- Parasites that can live in the intestines.
- Poisons, also called toxins.
- Bacteria that carry or make toxins.
- Molds that make toxins.

Sr.No	Causative microbe	Incubation time	Symptoms
1	Bacillus cereus (bacterium)	30 minutes to 15 hour	Foods such as rice, leftovers, sauces, soups, meats and others that have sat out at room temperature too long.
2	Campylobacter (bacterium)	18 to 36 hours. Infants: 3 to 30 days	For infants, honey or pacifiers dipped in honey. Home-preserved foods including canned foods, fermented fish, fermented beans and alcohol. Commercial canned foods and oils infused with herbs
3	Clostridium perfringens (bacterium)	6 to 24 hours	Meats, poultry, stews and gravies. Commonly, food that is not kept hot enough when served to a large group. Food left out at room temperature too long
4	Escherichia coli	Usually, 3 to 4 days.	Raw or undercooked meat,

	(bacterium)	Possibly, 1 to 10 days	unpasteurized milk or juice, soft cheeses from unpasteurized milk, and fresh fruits and vegetables. Contaminated water. Feces of people with <i>E. coli</i>
5	<i>Giardia lamblia</i> (parasite)	1 to 2 weeks	Food and water contaminated with feces that carry the parasite. Food handlers who are carriers of the parasite
6	Hepatitis A (virus)	15 to 50 days	Raw and undercooked shellfish, fresh fruits and vegetables, and other uncooked food. Food and water contaminated with human feces. Food handlers who have hepatitis A
7	<i>Listeria</i> (bacterium)	9 to 48 hours for digestive disease. 1 to 4 weeks for body-wide disease.	Hot dogs, luncheon meats, unpasteurized milk, soft cheeses from unpasteurized milk, refrigerated smoked fish, refrigerated pates or meat spreads, and fresh fruits and vegetables.
8	Norovirus (virus)	12 to 48 hours	Shellfish and fresh fruits and vegetables. Ready-to-eat foods, such as salads and sandwiches, touched by food handlers with the virus. Food or water contaminated with vomit or feces of a person with the virus
9	Rotavirus (virus)	18 to 36 hours	Food, water or objects, such as faucet handles or utensils, contaminated with the virus
10	<i>Salmonella</i> (bacterium)	6 hours to 6 days	Most often poultry, eggs and dairy products. Other foods such as fresh fruits and vegetables, meat, poultry, nuts, nut products, and spices.
11	Shellfish poisoning (toxin)	Usually 30 to 60 minutes, up to 24 hours	Shellfish, including cooked shellfish, from coastal seawater contaminated with toxins
12	<i>Shigella</i> (bacterium)	Usually, 1 to 2 days. Up to 7 days	Contact with a person who is sick. Food or water contaminated with human feces. Often ready-to-eat food handled by a food worker with shigella
13	<i>Staphylococcus aureus</i> (bacterium)	30 minutes to 8 hours	Meat, egg salad, potato salad or cream-filled pastries that have been left out too long or not refrigerated. Foods handled by a person with the bacteria, which is often found on skin
14	<i>Vibrio</i> (bacterium)	2 to 48 hours	Raw or undercooked fish or shellfish, especially oysters. Water contaminated with sewage. Rice, millet, fresh fruits and vegetables

Symptoms of poisoning may vary depending on what is causing the illness. They may begin within a few hours or a few weeks depending on the cause.

Common symptoms are:

- Upset stomach.
- Vomiting.
- Diarrhea.
- Diarrhea with bloody stools.
- Stomach pain and cramps.
- Fever.
- Headache.

Anyone can be food poisoning, but some like- Infants and children, Pregnant ladies, Older adults, People with weakened immune systems due to another disease or treatments are more likely to get sick or have more-serious disease or complications like- Dehydration, Blood clots in the kidneys, Bacteria in the bloodstream, Meningitis, Sepsis etc.

Treatment includes oral rehydration therapy, antibiotics, some time pain killers, anti cholinergic drugs, in severe condition IV fluids and IPD management.

In Ayurveda, Ashta vidha vishesh aytan and Ahar Vidhi vidhan are mentioned by acharyas which briefs on procedure of food preparation and process of food consumption. 8 rules are mentioned for food preparation. This includes the term 18 types of viruddha ahar, which results in diseases. With this Acharya Sushruta and Acharya Vagbhata explained about the poison which is formulated by the combination of virrudha ahar, Aushadhi, bhasma, waste products of human, low potency toxic formulations which when administered kills the person slowly and may produce many diseases are termed as dushi visha that literally means flawed, spoiled, damaged, defective or ruined poison. Any kind of poison originating from inanimate or animate sources or any artificial poison (kritrima visha) retained in the body after partial expulsion or which has provisionally undergone detoxification, by the antipoisonous drugs, first fire, the wind or the sun is termed as Gara Visha. According to Acharya Charaka, "A Poison formed by combination of different poison (Samyogaja visha) or concocted poison finds its reference under Gara Visha other than the basic classification of Visha as Sthavara and Jangama Visha". Because of the delayed digestion property of this Visha these are not immediately fatal.

It takes approximately 15days to 1 month for the signs to appear after the ingestion of the Gara Visha. Some of the symptoms like pale and weak body, loss of appetite, tachacardia,

oedema of the limbs, grahani, rajayakshma, gulma, dhatukshaya, jwara etc will start to appear are suggestive of Gara Visha poisoning.

Dushi visha exhibit ddysnetry/diarrhea, complexion will be altered, bad breath, impairment of olfactory and gustatory senses, unquenchable thirst, slurring and broken speech, vomiting sorrow, sudden bouts of unconsciousness are also seen. Few symptoms of Dushyaodara can also be seen.

Gara Visha & Dushi Visha Chikitsa- Few measures of treating are-

- Vamana Karma
- Licking tamra (Copper) churna along with Madhu
- Swarna Bhasma along with Honey
- Vishaghna Dravya
- Use of Agad formulations

AIM

To study the effect and dose of Bilvadi agad in Food poisoning.

METHODOLOGY

Single case study

A 21 yr Male student came to Ayurveda OPD with complaints of-

Sr.No	Complaints	Duration	Frequency
1	Body ache	3 days	Continuous
2	Nausea	2 days	Continuous
3	Vomiting	2 days	2-3 times
4	Headache	3 days	Continuous
5	Loose stools	2 days	1-2 times a day
6	Abdominal pain	3 days	Continuous
7	Anorexia	2days	Continuous
8	Sticky salivation	4 days	Continuous

After taking history it was found that subject had street food before 5 days for whole day in a fun fair. Also drink smoothie prepared from various food. All the symptoms start after 24 hr.

On examination-

Pulse- feeble

RR- 21/min

BP- 110/60

Tongue- coated white

HR- 88/min

Per Abdomen- tenderness in epigastric and gastric region

Liver/Spleen- NAD

Treatment Plan

Market compound of Bilvadi agad Gutika was given to subject-

Sr.No	Medicine	Dose	Anupan	Duration	Follow up
1	Bilvadi Agad	3 gm QID	Water	10 days	3 rd , 6 th , 9 th , 12 th , 15 th day
2	Sunthi+Jiraka Siddha Jala	Muhur Muhur	-	3 days	
3	Katuki churna	500 mg BD	Water	10 days	

Follow up- during the course of treatment 3 follow up was planned to observe the condition of subject and effect of drug. After completion of treatment, 2 post follow up was planned.

Observation- During the follow up it was observed that, symptoms like abdominal pain, nausea relived during 1st follow up also there was moderate relief in vomiting and anorexia; frequency and consistency of stool was improved. In 2nd follow up there was relief from head ache and salivation and moderate relief in anorexia.

In post follow up it was found that the drug was having moderate relief in all symptoms associated with food poisoning.

DISCUSSION

Food poisoning is one of the burning issues only focused when it happens in mass community but if it is individual it is ignored. Today due to increased consumption of fast food, street food or hotel food many GIT disorders are emerging day by day. Uses of artificial sweeteners, coloring agent, additives, storing process give rise to different toxins and micro-organisms. All this lead to ill effect on human body. Some may be acute and some lead to chronic effects.

Modern treatment includes symptomatic approach with many side effects. An Ayurvedic approach with Bilvadi agad was selected on a subject with symptoms of food poisoning. Bilvadi agad was selected as it contains drug like- Bilwa, Surasa, Karanja, Tagaram, Devadaru, Haritaki, Bibhitaki, Amalaki, Shunti, Maricha, Pippali, Haridra, Daruharidra pounded in Basta mutra; all these drugs posses activities like - Balya, shothaghna, Vishamjvaraghna, raktasthambhak, kapha- vata shamaka, vishaghna, Deepana- pachana-

anulomana, krimighna, vedna sthapana, Raktashodhak, janthughna, vranaropaka, pliha roga, Kapha Vata hara, jvaraghna, Bootaghna, madahara, shiro roga, apasmara, kapha vata har, kasa, shwasa, hikka, kandughna, tandrahara, rasayana, hrudaya, indriya prasada (clarity to senses), medhya (nootropics), shothahara, vednasthapana, rechaka, vatrakta, mootrala, tridoshaghna, Rasa, rakta, mamsa, medo doshahara, gara nashna, vami, trisna, etc. So it was used to treat the subject of food poisoning.

The use of drug showed relive from the symptoms of food poisoning like head ache, nausea, vomiting, abdominal pain, Body ache, anorexia. In post follow there was no constipation, anorexia, abdominal pain noted.

CONCLUSION

Since the subject was having mild to moderate symptoms of food poisoning without any emergency, I prefer to give Ayurveda combination of Bilvadi agad. The formulation along with Katuki and Sunthi-Jirak Siddha jala gives total relief from all symptoms of food poisoning. Also during post follow no recurrence was seen in symptoms.

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