IJAMS
INTERNATIONAL JOURNAL OF ADVANCED MULTIDISCIPLINARY STUDIES
Volume II, Issue 3 March 2022, eISSN: 2799-0664

# Social Aspects of Katsubong Poisoning: a case report

**BERENICE A. FAILON, MD**
DOH-ITRMC-FEUNRMF
Department of Community and Family Medicine
berenicefailon@gmail.com

*Abstract* — Katsubong, Angel's trumpet is a known plant has intoxicating properties and an overdose can cause narcotic poisoning. Reported cases were associated with its hallucinogenic effect. It is also known on its beneficial effects such as anti-gout, anti-fertility, anti-fungal and anti-toxicity properties. In this case, children aged 5-7 years old accidentally ingested its fruit without any knowledge on its effect and its complication. The patient was admitted in Ilocos Training Regional Medical Center (ITRMC). What can be the reason for this? Through this case report it showed that the government programs for information dissemination maybe inadequately disseminated. This case promotes further awareness of the toxicity of this plant among the public and may help to reduce the incidence of poisoning. Spray with suitable herbicide can be use can be used for the removal of this plant. Teachers can educate students not to eat unusual fruits and parents should always be reminded in guiding and taking care of their children. Health professionals should continue informing and educating the public specially when dealing with poisonous substance to prevent another incident in the future.

***Keywords — Katsubong poisoning, Angel's trumpet***

## I. Introduction

### A. The known

The Katsubong plant as a whole has narcotic, anodyne and anti-spasmodic properties and its seeds when dried are considered to be more powerful soporific than the leaves.

Studies have also suggested its anti-gout, insecticidal antifertility, antifungal and anti-oxidant properties. In Brazil, the seeds are used for tea making because of its sedative effect. For treatment in asthma; dried leaves and stem are cut into small slices and mix with equal quantity of tobacco and roll into cigarette and smoke 2-3 times a day. In India, this is use for hysteria, diarrhea, insanity, asthma and skin diseases.

The plant has also intoxicating and narcotic properties and an overdose can cause violent narcotic poisoning. All parts of the plants are poisonous; it contains tropanic alkaloids in varying concentrations and mostly are parasympatholytic. A parasympatholytic agent is a substance that reduces the activity of the parasympathetic nervous system. Excessive intake of Katsubong can cause hallucinations, severe intoxications and death, while medium doses can recover 12-24 hours, however the loss of memory and confusions may last for days. According to Philippine Institute of Traditional and Alternative Health Care (PITAHC), Angel's Trumpet (i.e. Katsubong) is a genus of flowering plants and may be fatal if ingested by humans or animals. It is consumed as a

tea for the hallucinogenic effects. Desired effects includes a sense of euphoria, however, it may actually cause hyperthermia, bizarre behavior, and severely dilated pupils. Pronounced amnesia may also occur.(Mendoza, 2016)

This plant is found throughout the settled areas in the Philippines. It is also cultivated for ornamental purposes. This plant is pantropic in distribution. (StuartXchange, 2018)

**B. The unknown**

But despite of this information, there are still incidences of accidental ingestion particularly among children such as what is describe in this case report. What can be the reason for this?

Do lay Filipinos believe and practice what the government teach in preventing poisoning?

Is there neglect on the part of parents/families in guiding children from accidental ingestion?

Do government programs for dissemination of health information reach the people?

**2. Clinical Summary**

a. General Data: A 5y/o male, Roman Catholic from Baccuit Sur, Bauang, La Union sought consult at the ER.
b. Chief Complaint: ingestion of unidentified fruit
c. Informant: Grandmother
d. History of Present Illness:

8 hours PTC around lunch time, the patient was playing with her sister and cousins at the neighborhood. The age of his playmates ranges from 6-8 years old. These 4 kids decided to get a fruit from the backyard of their neighbor, boiled it, they dipped in vinegar and ate it. After eating, they all went home and had an afternoon nap. The grandmother was busy cooking at that time for a birthday party for the patient. She noticed that the patient was holding a fruit with few bites on it but ignored it.

4 hours PTC, patient's cousin suddenly woke up shouting and complaining of headache. Grandmother also noticed it that all of them were feverish. Patient's sister and cousins started to become agitated. The patient remained to be calm. No vomiting, no loose bowel movement and no convulsions noted. One of the cousins was brought to a different hospital; the 3 kids including the patient were brought to ITRMC, hence admission.

e. Past Medical History:

The patient completed his immunization until 1 year old, which was given at the health center. Others were unremarkable.

f. Personal and Social History; and family history

Patient is attending class at Day Care Center near their house. He is the third child among the three siblings. He is currently taken care of by her maternal grandparents while her mother works in Manila with a live in partner. According to the mother, the patient is supported by his father and visits him with his siblings once in a while. Her grandfather is a fisherman while her grandmother is a fish vendor. The usual activities of the patient are going to school and playing with siblings and cousins usually at home or at their neighborhood.

g. Family Assessment tools administered are the following: Family Genogram, APGAR, SCREEM, Ecomap and Family Map,

These family assessment tools were administered during the home visit, after hospital discharge.

g.1 Structure:

Family members who are staying with him are grandfather 51 y/o; grandmother 50 y/o; eldest brother 8y/o; sister 7 y/o; his uncle who is separated 28 y/o; his cousin who is 6y/o; with her auntie, a single mom 23 y/o; another cousin, 4y/o; uncle, a 21 y/o with her wife who is 20 y/o and a 1 y/o child; another auntie 15 y/o, and an uncle who is 10 y/o; A total of 6 adults and 8 minors including the patient. The family is a presently on the stage of Family with young children. Patient belongs to a typical Filipino family type were extended families live together. He is currently taken care by her maternal grandparents, aunties and uncles. He is the youngest among the three children. Her mother is the eldest among the 8 siblings. She's living with her partner who is a security guard in a certain company. Patient's mother is separated with his father who is now living separately but sometimes visits them.

g.2 Resources

According to the family SCREEM-RES the resources are moderately inadequate. In cases were her grandparents works, his auntie or uncles will look after him with his other cousins. They take care of each other and taught to be loyal and respectable to the elders. Due to the low family income, all needs are not given. Education or knowledge is not adequate to understand the illness of the patient.

g.3 Psychodynamics

The family APGAR score is 8 which means that the family is functional. All relationships in the family are close (i.e. normal)

The patient lives in a bungalow type of house wherein there are 3 bedrooms, a lounge, a kitchen a toilet. According the definition of WHO Expert committee on public health, the family is not crowded. Internal environment risks are pests, hygiene and sanitation, food safety, fire hazard, human waste disposal. External environment risks are risks of flooding, risks of criminality and lack of measures for safety and security

g.5 Health Beliefs

The top 3 family sources of health information are barangay health workers and local heart center, Physician and television shows.

h. ER management

Upon seeing the patient at the ER, his vital signs were as follows: BP 90/60, CR 101, RR of 24 and weight was 14.5. The patient was lethargic but not in cardio-pulmonary distress. The skin was dry, no rashes noted. For the eyes, the pupils were 2-3mm and equally reactive to light. No signs of irritation noted on the mouth lips or buccal mucosa. Drooling of saliva was not also present. On the examination of the chest, there was symmetrical expansion and clear breath sounds. For the heart examination; the patient has adynamic precordium, has normal rate and regular rhythm and no murmur noted. Patients abdomen was globular, has normoactive bowel sounds, soft and non-tender. For the extremities, neither irritations nor rashes noted on the hands; non edematous and no deformities noted. Assessment at that time was poisonous plant ingestion.

At the emergency room, patient's was hooked to IVF D5 IMB 500 cc to run at 45ugtts/min. Patient was referred to DCFM department by helping the pediatric resident in identifying the fruit that has been ingested by the kids. Nurses were helping too in identifying the fruit ingested. After interviewing the grandmother, I reported the case to Poison case Center. The suspected poisonous fruit by that time was identified but still need evidence. They gave me information as how to manage such case.

I spoke to the Pediatric resident and gave them the Poison Center telephone number. I suggested some laboratory work ups such as CBC, ABG, CBG, BUN, Creatinine, Na, K, ALT, AST, urinalysis and CXR; Standby diazepam 0.3mg/kg/dose IV for agitation and possible seizure to watch out for; standby intubation; and isolation of the patient including his sister and cousin into a calm environment which was not possible at that time. Patient then was eventually admitted.

Patient was calm while at the ward. He was responding to his grandmother but saying only few words. For the diagnostic procedures; for the CBC results, WBC was elevated resulting to 21.88, and eosinophil of 10.7. Liver enzymes and electrolytes were normal. Blood gases were normal. Urinalysis was also noted to be normal. No definite abnormality was noted on the Chest x ray. (See appendix)

His 7 y/o sister was very active and agitated that time. I was asking her name and replied to me laughing and pointing one of the male caregiver on the other bed and saying "she's my auntie". The auntie who was also present at that time claimed that her niece was talking to her like an adult telling to her aunt "saan ka nga agsao-sao kanyak ti kasta!" "do not talk to me that way!". The auntie claimed that she is not usually like that. Unusual behaviors were noted at the hospital. The caregiver was very calm in attending to her needs. The patient and her sister were in the same bed at that time.

His 8y/o cousin was more agitated and hallucination was very obvious. The father of this 8 y/0 child claimed that his child was trying to removed his IV line and get out in bed. The male caregiver on the other bed claimed that the kid was telling to him “ag-shot tayo!” “Let’s drink!” and noted too that this kid pointing things on the ceiling.

For the patient, from the 2nd HD until he was discharged (4th HD), he remained active, had good appetite, playing once in a while with her mother’s gadget and plays as well with her sister. No vomiting, fever nor abdominal pain noted.

The family members were advised in guiding the children specially when going out or when they play outside their home and to inform as well the neighborhood regarding the plant that is toxic to prevent another incident of food poisoning. The patient was advised to follow up at OPD for re-evaluation. Home visit was conducted to administer family assessment tools.

## CASE DISCUSSION

As previously mentioned there are 3 important questions in this case report.

a. Do lay Filipinos believe and practice what the government teach in preventing poisoning?

According to the assessment tools for this case, the main sources of health information are BHW, Physicians and TV, hence, these are the only ways for the information to reach the family. Other sources of information such as internet, schools, and Department of Health (DOH) programs are not accessible to the family.

b. Is there neglect on the part of parents/families in guiding children from accidental ingestion?

According to the assessment tools for this case the family is highly functional, meaning neglect is unlikely. Likewise, the family map showed close relationships, absence of conflictual and/or distant relationship, meaning neglect is unlikely.

c. Do government programs for dissemination of health information reach the people?

The information about the poisonous nature of the plant is disseminated mostly through the internet. The internet however is not a source of health information for this family. Therefore, dissemination of health information to reach this family is inadequate. Although other means are still available such as BHW, physicians and TV.

## II. Conclusion

This case report showed that the government programs for information dissemination maybe inadequately distributed.

The public need to be inform and be aware with the effects of this plant. This can start with the barangay officials so they can monitor their own barangays for the removal of this type of plant.

Teachers can educate students not to eat unusual fruits and parents should always be reminded in guiding and taking care of their children.

Health professionals should continue educating the public when dealing with poisonous substance to prevent another incident in the future and further intoxication of the individual when taken.

## REFERENCES

[1] Datura metel. (2018, April 4). Retrieved september 19, 2018, from Datura metel: http://tropical.theferns.info/viewtropical.php?id=Datura+metel
[2] Godofredo U. Stuart Jr., M. (2018, September). Talong punay. Retrieved september 19, 2018, from Phiippine Medicinal Plants: http://www.stuartexchange.org/Talampunay.html
[3] Isil Bavonuglu, M. B. (2016). Oleander poisoning as an example of Self medication attempt. Balkan Med Journal, 559-562.
[4] Kasper, F. H. (2015). Harrison's Principles of Internal Medicine. New York: McGraw-Hill Companies, Inc.
[5] Leopando, Z. (2015). Family Medicine . Manila: C & E publishing, Inc.
[6] Lusweti, A. (2018, September). Datura metel (Angel's Trumpet). Retrieved September 2018, from Datura metel (Angel's Trumpet): https://keys.lucidcentral.org/keys/v3/eafrinet/weeds/key/weeds/Media/Html/Datura_metel_(Angels_Trumpet).htm
[7] Mendoza, M. T. (2016). Plant Toxicity. Plant Toxicity.
[8] StuartXchange. (2018, September 9). Talong punay. Retrieved from Philippine Medicinal Plants: http://www.stuartxchange.org/Talampunay.html
[9] Tao Le, V. B. (2016). USMLE Step 3. New York: Mc Graw Hill Education.