



Serious Poisoning by Fungi at Bouaké University Hospital

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Abstract

The world of mushrooms is varied and very complex. Of the thousands of species present in our forests and countryside, only about thirty would be dangerous for man. The confusion between a toxic fungus and an edible fungus is reminiscent of consumers. We report the case of a collective and serious intoxication by fungi that have caused the death of several patients. Fungus poisoning is responsible for liver, kidney and neurological failures that may be life-threatening. Diagnosis and management should not be delayed.

Introduction

The world of mushrooms is very complex. There are thousands of species of mushrooms in our forests and countryside. Among them, only thirty would be dangerous for the man [1,2]. However, the recognition of these dangerous species is often not very obvious to the layman and the confusion between a toxic fungus and an edible mushroom is one of the first causes of intoxication [3,4].

Each year in France, there are a thousand poisoning related to the consumption of mushrooms [4-9].

The health consequences of this type of poisoning can be serious (severe digestive disorders, liver damage) or even fatal if the diagnosis and management are delayed.

In Ivory Coast, the consumption of mushrooms is frequent and is among our eating habits. It occurs most often during the harvest period in June, July and August.

We report the case of a serious collective food poisoning of mushrooms that occurred during the month of July and that resulted in the death of several people.

In case of intoxication, the problem of identifying the fungus is often insoluble and it remains only the clinic to get an idea of the toxicity of the fungus ingested. The first clinical signs are represented by the digestive syndrome. The evolution can be towards a multi-organ failure which is at the origin of the deaths.

The incident occurred during the month of July 2018 in a small town called Tinbé (locality located 18 km from Katiola, Katiola is a town located 53 km from Bouaké).

Two families living in Tinbé had severe mushroom poisoning.

The first family is made up of seven people, namely: the 58-year-old father, the 35-year-old mother and five children aged 3, 5, 8, 12 and 15 respectively.

The second family consists of four people: the 35-year-old mother and three 2-year-old children 4 months, 7 years and 10 years old.

These two families have ingested during the meal the same type of mushrooms. the number of meals (containing the mushrooms) consumed could not be specified.

The delay of the first signs is approximately 10 hours (greater than 6 hours).

The first signs were a digestive syndrome made of nausea, vomiting food, abdominal pain and an acceleration of intestinal transit made of liquid stools. These signs motivated a traditional treatment made of decoction. Faced with the persistence of the signs, the patients consult at the hospital of Tinbé where the doctor makes the diagnosis of a mushroom poisoning. He hospitalizes them, carries out a gastric lavage and makes a hydro electrolytic contribution to all the patients.

The evolution is marked by the persistence of the digestive syndrome and the death of two patients (aged 3 years and 8 years) in less than twenty-four hours in Tinbé. Surviving patients were taken to the Hospital and University Center (CHU) of Bouaké via Katiola General Hospital. The clinical and para-clinical investigations carried out at the Bouaké University Hospital showed a digestive syndrome, hyper sialorrhea, physical asthenia, a neurological syndrome (occurring from the 48 th hour, caused by psychomotor agitations, generalized tonic-clonic convulsions and a progressive and profound deterioration of the state of alertness ranging from a simple obnubilation to a profound alteration of the state of consciousness with a score of Glasgow to 3/15), a hemorrhagic syndrome (occurred from the day 5, mucosal bleeding, low BP and prolongation of TCA) of fever (at 39 ° C in one patient, leukocytosis at 12000 elements / mm³ predominantly neutrophilic polynuclear) of severe hypoglycemia (at the second day at 0.42 g / l in two patients) and jaundice. The renal outcome was normal.

Treatment was symptomatic gastric lavage, hydro electrolytic and caloric intake, probabilistic ant biotherapy, hemostatic (Dycinone *, Exacyl *, vitamin K1).

Treatment progress was marked by the persistence and worsening of neurological and digestive signs.

The average duration of hospitalization is 1.77 days (with extremes ranging from 1 to 6 days).

We deplored five (05) deaths (patients aged 5, 7, 8, 10, 12 out of the nine (09) hospitalized patients (including 04 children in the first family).

Out of a total of 11 intoxicated patients, we deplore the deaths of 7 patients; the death rate is 63.63%; with the average age of patients who died at 7.57 years.

The sex ratio is 0.72 with a male predominance. The average age is 17.27 years with extremes ranging from 2 years 4 months to 58 years.

Discussion

The incidence and severity of mushroom poisoning remains difficult to assess in Côte d'Ivoire.

This is not the case in France where there is rigorous monitoring especially during the mushroom picking season. According to the National Agency for Food Safety, Environment and Labor (NAFSEL) and the General Direction of Health (GDH); there has been an increase in mushroom poisoning during this period from July to December 2018. There is an average of 20 to 60 intoxication cases per week with a peak of up to 250 cases per week in October 2018.

In our countryside, the main circumstance of mushroom poisoning is confusion with edible fungi.

The symptoms presented by these patients are due to a direct toxic action of fungi on the body.

The various fungus poisoning syndromes are classified according to the symptomatology and the time elapsed between the ingestion of fungi and the time of onset of these symptoms. The syndromes of "less than six hours" and those of "more than six hours" are thus distinguished [9]. This classification delimits respectively the functional syndromes of evolution most often benign, and the lesion syndromes for which the vital prognosis can be engaged [10].

During a mushroom poisoning, there are several syndromes namely gastrointestinal, muscarinic, pantherin, paxillian, coprinian and narcotin. They occur during the first six hours and are benign.

And syndromes that occur after the first six hours that are responsible for organic lesions. These are rhabdomyolysis syndromes (in case of muscular lesions), the Orellanian and proximal syndrome (in case of kidney lesions), the gyromitrien syndrome (responsible for liver, neurological and coagulation lesions) and the phalloid syndrome (in case of acute hepatic injury)

Digestive disorders occurred early with an average of about 3 hours. It consisted of nausea, vomiting and transit acceleration that would be responsible for dehydration and then hydroelectrolytic disorders that will worsen the clinical condition of patients. This is consistent with the literature [14].

The patients had fungal poisoning with phalloid syndrome. This syndrome has a poor prognosis because of the acute hepatic lesions it causes.

Our mortality rate is high (63.63%) compared to that of France, which is 15% [16] at the University Hospital of Grenoble. This is explained by the delay of care, the difficulty of access to the specialized health center and the insufficiency of technical platform.

Conclusion

Of the thousands of edible mushroom species present in our forests and countryside, a number of fungi are poisonous or even deadly.

It is therefore essential for the farmer to be able to recognize the different species of mushrooms that are harvested.

The only way to avoid being poisoned is to know, by their botanical characters, the dangerous species and the edible species. Any other empirical or traditional method can cost you your life.

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