



## The roles of medicinal herbs in the treatment of measles

Huynh Tan Hoi\*

Language Department, FPT University, Vietnam



### Article History:

Received on: 11 Mar 2020

Revised on: 10 Apr 2020

Accepted on: 14 Apr 2020

### Keywords:

Medicinal herbs,  
Measles,  
Medication,  
Treatment

### ABSTRACT

As an acute infectious disease caused by the paramyxoviridae virus, the disease spreads rapidly into a respiratory tract. Patients may have many serious complications if not monitored and treated promptly. Identifying common measles in young children and contagious in the community, especially in schools, kindergartens and primary schools is something that many people are interested in to master the methods in order to prevent this disease. Measles, although not serious, has serious complications and can be fatal. In addition to vaccinating children, some folk remedies handed down and currently being used to treat measles in Vietnam have proven its effectiveness. Very common herbs that are used for everyday food seem very ordinary but have great roles that we sometimes overlook. The scientific ingredients in herbs are a safe solution for people suffering from viral diseases such as influenza strains, typhus, pimples, dysentery, sore throat, colds. A special thing is that herbs is quite safe and have few side effects like Western medicine antibiotics. There are some medicinal herbs such as ophiopogon japonicus, coriander seed, elsholtzia cristata or eclipta prostrata which can bring a healthier life for everyone in general and children in particular if we know how to apply these herbs in a logical and scientific way. For that purpose, the paper was completed in order to clarify the basic knowledge of measles and the way of using medicinal herbs as a therapy that has been used for a long time in some Asian countries in general and Vietnam in particular.

### \*Corresponding Author

Name: Huynh Tan Hoi  
Phone: +84-965460459  
Email: hoiht@fe.edu.vn

ISSN: 0975-7538

DOI: <https://doi.org/10.26452/ijrps.v11i3.2570>

Production and Hosted by

IJRPS | [www.ijrps.com](http://www.ijrps.com)

© 2020 | All rights reserved.

### INTRODUCTION

Before the measles vaccine became widespread globally, an estimated 2.6 million people died of measles every year. Since the 1980s, with the implementation of the worldwide immunization program, measles has gradually subsided. In 2012, there

were 145,700 cases of measles deaths worldwide. Measles is a disease that needs to be vaccinated, according to the World Health Organization's recommendation that the measles vaccine for the first measles vaccine reaches 93% of the ability to prevent measles; the second dose reaches 97% of the preventive capacity. However, the recommendation only applies to children over 9 months of age for single measles shots, over 12 months of age with 3-in-1 shots (measles, mumps, rubella). At the year of 2000, there were nearly 40 million measles cases and 777,000 deaths in 11 countries (Stein *et al.*, 2003).

In Vietnam, the measles vaccination rate is at 90%, this rate has decreased. The significant number of measles cases falls below 10,000 per year. Thousands of patients were suffering from measles from 2000s. In the first measles outbreak of 2014, by the end of April the number of cases had reached

8,500 and there were at least 114 deaths. Over 86% of cases of measles infection have not been immunized or it is unknown whether the child has been vaccinated or not. Among the deaths, half of them were children under 9 months of age. High mortality, the percentage of children under 9 months of measles is much higher than the same period in 2013. Strengthening education and improving knowledge to care for children who suffer from measles and to prevent measles for mothers play an important role. Then, we can reduce child mortality and reducing the risk of infection to the community (Sniadack *et al.*, 2008).

### Literature review

In the past, measles was quite common but today it has been prevented by vaccines. Measles symptoms include a cough, runny nose, red eyes, sore throat, fever and a spotted body rash (Botelho-Nevers *et al.*, 2012; van den Hof *et al.*, 2001). Measles can be serious and even fatal for young children. While the mortality rate has decreased worldwide due to many children being vaccinated against measles, the disease still kills several hundred thousand people every year, most under the age of 5 (Figure 1).

In the United States, by the year 2000, the measles vaccine had eliminated this kind of disease. But recently, the illness has risen again because many people have not taken their children for measles vaccination (Bottiger *et al.*, 1987). Measles is a contagious disease caused by a viral respiratory tract and mainly affects children less than 5 years old, usually occurs in the season of winter-spring and can appear in adults due to unvaccinated or not fully vaccinated. The disease is characterized by fever, respiratory tract inflammation and conjunctivitis and rashes, can lead to complications like pneumonia, encephalitis, corneal ulcers, diarrhea and even be fatal.

Measles is an acute infectious disease, spread by respiratory tract, caused by micro measles viruses. The disease is characterized by fever, respiratory tract inflammation, gastrointestinal disorders, conjunctivitis, and measles-specific rash. Measles is one of the leading causes of death in young children due to immunodeficiency, complications of pneumonia, and acute respiratory failure without measles vaccination (van den Hof *et al.*, 2001).

There are some active, simple and effective measures to prevent measles today. Children of full 9 months are recommended to get measles vaccine free of charge at health facilities. In addition, to ensure the creation of sustainable immunity, a second dose of booster vaccine must be given at 18 months of age. Measles spreads very quickly, so

when children are found to be ill, they should immediately be taken to health facilities for examination and treatment, and isolate the source of disease to avoid spreading it to the community (Khodabakhsh *et al.*, 2016).

Implement preventive measures for health workers and their family members are necessary. Wearing medical masks when taking care of sick children is also a measure to prevent cross-contamination for other children in hospitals where patients have measles. Then, washing your hands clean before and after caring for sick children with the goal of preventing cross-contamination.

### MATERIALS AND METHODS

#### Methodology

The study was conducted on 80 subjects who were on duty to take care of the measles being treated at the Pediatric Department, Hoc Mon District Hospital and Ho Chi Minh City Pediatric Hospital. The study time was about 2 weeks in August of 2019. The research information was collected according to a consistent sample of measles children including ages of children, sex, duration of infection, clinical manifestations of the disease, history of measles vaccination. Survey also includes mothers' knowledge and skills on measles, preventive measures, and ways to treat measles children as well as which medical centers for primary care (Figure 2).



**Figure 1: Symptoms of measles**

The problem revolves around the three questions mentioned in the survey. Three questions respectively include the first one: "What do you think about measles infection?" the second one: "What do you think about the danger to the child's life?" And, the third one is: "Without prompt treatment, is the disease life-threatening?"

These questions revolved around respondents'

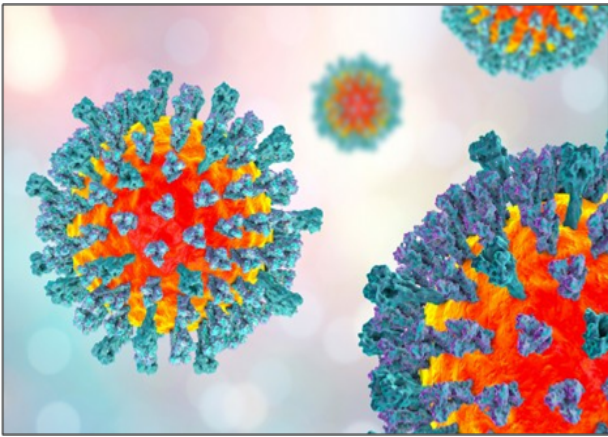


Figure 2: The image of measles virus



Figure 5: The image of ophiopogonjaponicus

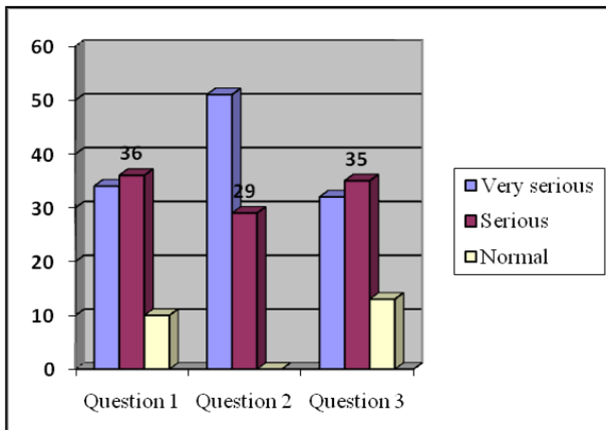


Figure 3: Knowledge of patients' mothers about measles



Figure 6: The image of coriander seed

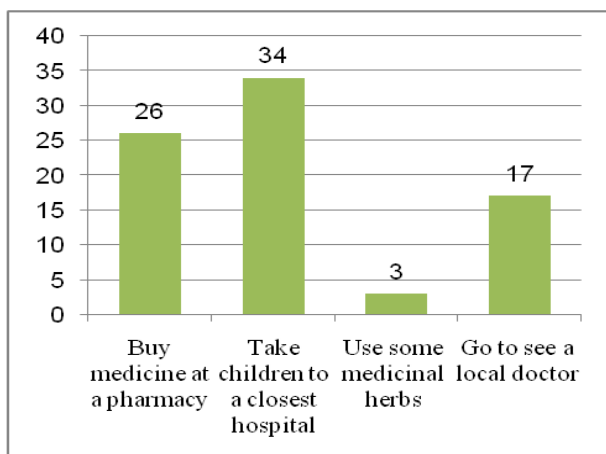


Figure 4: Mothers' reaction to their child's measles



Figure 7: The image of elsholtziacristata



**Figure 8: The image of ecliptaprostrata**

knowledge and attitudes about measles. They all think this is a quite dangerous disease symptom and need to pay attention to young children in disease prevention and treatment (Figure 3). The epidemic situation is still at increased risk in many countries around the world. In this context, the health sector of Vietnam has made great efforts to prevent and control diseases. In 2019, the Ministry of Health determined that disease prevention and control continued to be a key task, and the Ministry of Health issued a plan for disease prevention and control right from the beginning of the year. Immunization is one of the most important measures to prevent dangerous infectious diseases. The basic knowledge about measles is communicated in newspapers, radio and T.V, so people are quite quick to respond to prevention and treatment.

Some people who still think that this is just a non-dangerous disease. Some chose pharmacies to treat children (32.5%), most people choose hospitals (42.5%), some choose a local doctor and very few people used medicinal herbs. They still do not have much experience with the disease as well as a full knowledge of how to use herbs inherent in nature. In fact, in some rural areas of Vietnam still do not have good hospitals, full of equipment. Therefore, the use of herbs should be promoted (Figure 4).

#### **Some ways to treat measles for children in Vietnam**

There are many kinds of medicines such as western medicine, folk remedies from familiar herbal plants that help to treat some kinds of diseases (Stein *et al.*, 2003). Especially, when a child has measles, doctors will often prescribe antibiotics with anti-inflammatory, antipyretic, etc. for children. However, when taking medications can cause side

effects, especially children should not use many antibiotics, unless there are signs of serious infection. Folk remedies can cure measles quite effectively (Stark *et al.*, 2016).

If we are near a medical facility like a hospital, take our children to a doctor for examination and treatment. During the period of mild measles, monitor the child at home closely, if there are unusual events, the child should be taken immediately to the nearest hospital.

Then, there is some food children should not eat. Children with measles should not use hot spicy spices like chili, pepper, cinnamon, onions, garlic or curry. These foods may cause adverse reactions to the patient. Foods high in fat should be limited, and of course, oily fried foods, baked foods, smoked, animal organs, cakes or chocolate should also not be used. These are very easy to generate heat and are also not beneficial to people with measles (Ellison, 1932).

In fact, we understand that the best precaution is to get our children vaccinated against measles, however, the smell therapy is also considered as one of the precautions. However, Stark *et al.* (2016) mentioned "tawa nan ampek" as one kind of herb can treat this measles in the West Sumatra. At the end of the year, if do not the same herb, we can buy lots of old coriander trees with solid fruits, tied at the top of the house, let the wind dry crispy, crush the seeds and dry leaves into the sealed jar. In the period when measles is common, we can take a small handful of seeds and old coriander leaves and put into 3 tablespoons of boiled water, then cool it down to bathe the child. By bathing our children every half a month, this way can prevent measles arising and keep them clean and fragrant (Stark *et al.*, 2016).

One of the folk remedies can be used to treat measles is the following prescription. Of these plants, ophiopogon japonicus is one of the best one has been using for years. It includes the dried herbs such as perilla frutescens var. crispa (30 g), pueraria thomsoni (25 g), elsholtzia cristata (20g), marjoram, ophiopogon japonicus (20 g), glycyrrhiza uralensis (5 g). All are finely ground into fine powder and packed into small packages weighing about 3g (Figure 5).

Children 1 year of age can take two packs a day, children at the age from 3 years old can take 4 packs a day. The drug is only used for 3 days, only taking the first phase, when the measles has grown steadily. Children with diarrhea should not take this kind of medication.

The next folk remedies is that we can take 5-6 jas-

mine leaves and put in a cup of water, boil it thoroughly, then cool it so that children can drink. While the first measles on the first one or two days, if they have diarrhea 3-4 times a day also, we do not mind so much. Measles can grow for a few days, but if the children cough a lot, sometimes coughing for an hour, we should take about 10 leaves of *houltuy-nia cordata*, then wash these herbs with salt water, grind, squeeze them to get the juice for each drink.

The children who have measles dimly after two or three days do not grow out clearly, so take a handful of old coriander leaves, pour in with two bowls of water to boil thoroughly, keep warm, then wipe with a clean, damp washcloth to wipe children from head to toe. We can also take a handful of old scents with a cup of boiled wine and then spray from the neck to the legs and back of the abdomen (avoid head, face). After 3-4 days, the measles have flown, so children should eat easy-to-digest things such as rice porridge or vegetable soup and should not eat much meat. If eating meat, only lean meat should not be fed. Then, we can cook fragrant leaves including lemongrass leaves, marjoram leaves; old coriander leaves to clean the children's body (Figure 6). Both coriander leaves and seeds are effective in preventing this disease quite well.

Besides, traditional medicine prescriptions can be applied for the onset of measles (Sniadack *et al.*, 2008). We can combine the leaves of *elsholtzia cristata*, *wedelia chinensis*, lettuce leaves, *lactuca indica*, mulberry leaves (from 8-12g); bamboo leaves (12 - 20g); *eclipta alba* Hassk (12 - 16g); *senna alata* seeds, *glycyrrhiza uralensis* (4 - 8g), or sugarcane (3 servings). Put all of the above herbs to cook for 20 minutes until we get about 02 bowls of condensed liquid. Take this medicine two or three times a day while it is still warm from 3-5 days (Figure 7).

Of all herbs, *elsholtziacristata* is one of the most popular herbs today and is sold in most markets or can be grown in the garden of the Vietnamese in particular and in tropical area in general. In addition to making herbs, *elsholtzia cristata* also has extremely good effect in treating many diseases. But there are still some of us who are unaware of *elsholtzia cristata*. Known by its healing effects, this herb also works in beautifying the skin. It is from 30 to 45cm high, the leaves are green. The stems are square, upright, with small purple flowers. Chemical composition includes menthol racemic, d-menthol and d-limonene.

If the patients are coughing, we can use more remedies for cough, by taking lemon basil leaves (12-20g), chives leaves (8-10g), 03 slices steamed blueberries with 5g alum sugar (add 50ml water) or

50ml sugarcane juice. Patients can take it 3-4 times a day until the disease disappears.

Remedy for final period of measles is also rather important (Ellison, 1932). Take ripe mulberry leaves, *eclipta prostrata* (6 - 12g each); *glycyrrhiza uralensis*, lotus leaf (6 - 10g each), add 10g of black beans, use 2 bowls of clean water, cook all herbs until it condense into half a bowl. Patients can take this medication from 5-7 days; one time per day is enough (Figure 8).

## CONCLUSIONS

So far, according to the medical record, a person who has been exposed to measles will have lifelong immunity, if he or she does not have immunodeficiency diseases or diseases that must take immunosuppressive drugs. Measles in children can be treated at home if detected early and cared for properly. To avoid dangerous complications for the health of children, parents need to quickly detect the signs of measles for timely treatment plan. And it's also important that we can further disseminate the amazing effects of natural herbs and use them to prevent and treat this disease.

## ACKNOWLEDGEMENT

The author would like to express warm thanks to the financial support of FPT university as well as kind respondents who answered the survey questions.

## Limitations of the research

The article has not been studied in depth on the ingredients of herbal medicine to treat headaches effectively and this will be studied in the near future.

## Ethical clearance

The author ensures the quality and integrity of the research. By writing this research paper, the author surely respects the confidentiality and anonymity of the research respondents since they participated in the work voluntarily.

## Conflicts of interest

No conflicts of interest noted in the paper.

## Source of funding

The author would like to express warm thanks for the financial support of FPT University and the people who assisted me in completing this article.

## REFERENCES

- Botelho-Nevers, E., Gautret, P., Biellik, R., Brouqui, P. 2012. Nosocomial transmission of measles: An updated review.

- Bottiger, M., Christenson, B., Romanus, V., Taranger, J., Strandell, A. 1987. Swedish experience of two dose vaccination programme aiming at eliminating measles, mumps, and rubella. *BMJ*, 295(6608):1264–1267.
- Ellison, J. B. 1932. Intensive vitamin therapy in measles. *BMJ*, 2(3745):708–711.
- Khodabakhsh, M., Mehri, M., Ghorbani, F., Feyzabadi, Z. 2016. Measles from the Perspective of Rhazes and Traditional Iranian Medicine: a Narrative Review. *International Journal of Pediatrics*, (10):3661–3668.
- Sniadack, D. H., Mendoza-Aldana, J., Huyen, D. T. T., Van, T., Cuong, T. T. V., Olive, N., Hien, J. M., T, N. 2008. Epidemiology of a Measles Epidemic in Vietnam. *The Journal of Infectious Diseases*, 204(suppl\_1):476–482.
- Stark, A., Yahaya, F. H., Kurniawan, Y. 2016. Tawa nan ampek: A traditional Way of healing Measles, Kete-guran and other Disorders in West Sumatra. *International Journal of Social Science Studies*, 4(5):4–4.
- Stein, C. E., Birmingham, M., Kurian, M., Duclos, P., Strebel, P. 2003. The Global Burden of Measles in the Year 2000—A Model that Uses Country-Specific Indicators. *The Journal of Infectious Diseases*, 187(s1):S8–S14.
- van den Hof, S., Meffre, C. M., van Spaendonck, M. A. C., Woonink, F., de Melker, H. E., van Binnendijk, R. S. 2001. Measles Outbreak in a Community with Very Low Vaccine Coverage, the Netherlands. *Emerging Infectious Diseases*, 7(7):593–597.