



(CASE REPORT)



## Measles in Adult Subjects: About one case

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### Abstract

Measles, also known as the “first disease”, is a common childhood illness that can occur in adults as well. Sometimes leading to extremely serious complications. Highly contagious, this infectious disease is caused by the measles virus, a morbillivirus belonging to the family Paramyxoviridae. Typical symptoms of measles include fever, a strong feeling of general malaise and rash on large areas of the body. During infection, a high fever appears twice. Complications such as otitis and pneumonia are relatively common. The incubation period, which is the time between infection and onset of disease, usually lasts eight to ten days. Getting measles immunizes for life and protects against any new infection with the measles virus. There is a preventive vaccination, recommended in the Vaccination Plan. It is a reportable disease.

**Keywords:** Young adult subject; Report clinical; Biological; Eadiological and developmental characteristics of measles.

### 1. Introduction

We report here a case of measles treated at the virology and infectious diseases center at the military hospital Mohamed V of RABAT.

### 2. Case Description

This is a 34-year-old patient, with no particular history, with a history of traveling to the Seychelles in 2023. Symptoms started 6 days ago with the onset of an influenza syndrome characterized by asthenia, arthralgia, fever, watery eyes, conjunctivitis, followed by the appearance of generalized maculo-papular lesions with healthy skin intervals not pruritic, fading on the vitropressure, and oral exanthems, with a positive Koplick sign.

At admission, the patient was conscious, well oriented in time and space, with a temperature of 39.6°C, and signs of febrile conjunctivitis. Her hemodynamic and respiratory status was stable: SpO<sub>2</sub> = 98% in ambient air, heart rate at 70 bpm, blood pressure at 120/70 mmHg, breathing rate at 17 cpm, Normal-colored conjunctives, soft nape, and the rest of the exam was unremarkable.

The paraclinical checkup included a CRP at 78, a blood count showing leukopenia at 9900 with lymphopenia at 310, an Hb at 14.4 g/dL, and platelets at 154000/ mm<sup>3</sup>. Blood ionogram was normal, liver test slightly disturbed, lumbar puncture was normal, viral serologies (HIV, VZV, CMV, EBV, HBV) were negative, measles serology was negative, but PCR-Measles was positive.

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### 3. Discussion

Measles is a major global public health challenge, affecting nearly 9.7 million people each year and causing approximately 134,200 deaths. This highly contagious viral disease spreads easily by inhalation when infected droplets are inhaled, sneezed or coughed, This may lead to serious and life-threatening complications. Although anyone can get measles, children are particularly vulnerable.

The measles virus initially infects the respiratory tract before spreading throughout the body. Common symptoms include high fever, cough, runny nose and a generalized rash.

Vaccination remains the fundamental pillar of measles prevention and its harmful consequences. The vaccine is not only safe, but it also strengthens immunity to the virus, thus reducing the risk of contracting the disease and passing it on to other individuals.

Through rigorous early childhood immunization strategies and the implementation of measles surveillance and mandatory reporting in many countries, The epidemics have been largely contained. Increased vaccination efforts by governments, WHO, the Measles Partnership (formerly the Measles and Rubella Initiative) and other international partners, helped prevent 56 million deaths between 2000 and 2021. The vaccination has significantly reduced measles-related deaths from 761,000 in 2000 to 128,000 in 2021.

Complications of measles are more common in children under 5 years and adults over 30 years. Children suffering from malnutrition, especially those with vitamin A deficiency or immune system weakened by HIV or other diseases, are more likely to develop complications. Measles also weakens the immune system, making children particularly vulnerable to infections. Anyone who is not immune, whether unvaccinated or vaccinated but has not developed immunity, can contract the disease. Young children and unvaccinated pregnant women are most at risk of serious complications from measles.

Measles is one of the most contagious diseases in the world, transmitted by contact with infected nasal or pharyngeal secretions (coughing or sneezing) or by inhalation of the exhaled air by an infected person. The virus remains active and contagious in the air or on infected surfaces for about two hours, making transmission very effective. An infected person can potentially infect nine out of ten unvaccinated close contacts. Transmission can occur four days before the rash begins and up to four days after.

There is no specific treatment for measles. The primary focus of care is to relieve symptoms, provide patient comfort and prevent complications. Proper hydration is essential, and treatments can be given to correct dehydration due to vomiting and diarrhea. Healthy eating is also recommended.

Doctors may prescribe antibiotics to treat complications such as pneumonia and ear and eye infections.

It is recommended that all children or adults with measles receive two doses of vitamin A supplements, given at intervals of 24 hours. This measure aims to restore low vitamin A levels, even in well-nourished children, and can help prevent eye damage and blindness, This reduces the number of deaths caused by measles.



**Figure:1 Koplik tasks**



**Figure 2: rash on the trunk**



**Figure 3: Koplik tasks in young adults**



**Figure 4** Rash on back

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#### **4. Conclusion**

In conclusion, measles remains a major global public health challenge, affecting mainly children and non-immune adults. Complications can be severe, especially in vulnerable populations. However, through vaccination strategies and preventive measures such as vitamin A supplementation, significant progress has been made in the fight against this disease. Continued vaccination and education efforts are essential to achieving measles eradication goals and ensuring health and welfarebe populations of the world.

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## Compliance with ethical standards

### *Disclosure of conflict of interest*

No conflict of interest to be disclosed.

### *Statement of informed consent*

Informed consent was obtained from all individual participants included in the study.

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