



Epidemiological Alert: Outbreak of Oropouche Fever

(22 June 2010)

Current Situation

In the Americas, outbreaks of the Oropouche fever virus have been described in rural and urban communities of Brazil, Ecuador, Panama, Peru, and Trinidad and Tobago. In the majority of these outbreaks, people of both genders and of all ages were affected. In populations with prior contact with the virus, the most affected age groups were children and adolescents.

The Oropouche virus exists in nature in two cycles, the wild and urban-epidemic cycles. In the wild cycle, wildlife such as primates, sloths, and certain arthropods serve as reservoirs, with the flies acting as vectors. In the urban epidemic cycle, the infection cycle remains vector-man-vector, with the human being acting as the principal host.

Outbreaks that were registered in the last ten years as due to the Oropouche virus have occurred mainly in the Amazon region.

In May of this year, the national authorities of Peru detected a febrile disease outbreak caused by the Oropouche virus in the locality of Bagazán, district of Pachiza, department of San Martín. As of Epidemiological Week (EW) 23, a total of 282 cases of Oropouche fever had been recorded, with 241 probable and 41 confirmed cases. The presence of the fly *Culicoides paraensis* was identified in the locality where this outbreak was occurring.

In Peru, the Oropouche virus was isolated for the first time in 1992 in the area of Iquitos; and this is the first occasion in which the Oropouche virus has been identified in that locality.

In light of this outbreak, the authorities have alerted the facilities in the local health network as to case identification and have strengthened the organization of their healthcare services.

What is Oropouche Fever?

Oropouche Fever (ICD-10 A93.0) is a zoonosis produced by the Oropouche virus, a bunyavirus of the Simbu group.

It is transmitted to humans primarily through the bite of the *Culicoides paraensis* fly.

The disease produces symptoms similar to dengue. It has an incubation period of 4–8 days, with a range of between 3–12 days. The onset of symptoms is sudden, usually with a fever, headache, arthralgia, myalgia, chills, sometimes nausea and persistent vomiting up to 5–7 days. Meningoencephalitis has been known to occur occasionally.

Symptoms last from 5–7 days; however, full recovery can take up to several weeks in some patients.

Factors that Influence Incidence and Can Lead to an Increase in Cases

- High density in the presence of the hematophagous vector *Culicoides paraensis*.
- Migration of susceptible persons from non-endemic regions to endemic regions.

General Recommendations

1. Investigation of existing outbreaks in order to adequately define prevention and control measures.
2. Intensification of surveillance activities to detect cases.
3. Strengthening of laboratory services to confirm diagnoses.
4. Capacity-building among health workers on case detection and management.
5. Strengthening of entomological surveillance to determine the vectors and possible reservoirs involved in transmission.
6. Application of measures to reduce the vector density in areas where outbreaks are occurring.
7. Dissemination of information to the sick on the importance of using personal protection to prevent fly bites and interrupt the urban cycle of transmission of the infection.
8. Dissemination of information and recommendations to alert the population at risk as to prevention and control measures.

Bibliographical References

- 1- Ministry of Health of Peru. General Health Directorate. IHR National Focal Point. *Report on the outbreak of Oropouche in the locality of Bagazan, district of Pachiza, Department of San Martin, Peru. June 2010.*
- 2- David L. Heyman. *Control of Communicable Diseases*. Scientific and Technical Publication No. 613.2005
- 3- George W. Beran, ed. *Handbooks of Zoonosis*. 2nd ed. Section B: Viral.
- 4- Hartmunt Kraus, Albert Weber, et al. *Zoonoses: Infectious diseases transmissible from animals to humans*. 3rd ed. Washington, DC, USA. (2003), pp. 69-70.
- 5- Pinheiro, Francisco P., Amelia Travassos da Rosa, Jorge Travassos da Rosa et al. A Review of Clinical, Epidemiological, and Ecological findings. *Am. J. Trop. Med. Hyg.* 30 (1), 1981, pp. 149-160.
- 6- Stephen R. Manock, Kathryn H. Jacobsen, Narcisa Brito de Bravo, Kevin L. Russell, Monica Negrete, et al. Etiology of Acute Undifferentiated Febrile Illness in the Amazon Basin of Ecuador. *Am. J. Trop. Med. Hyg.* 81 (1), 2009, pp. 146-151.