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July 17, 2013
Outline

1. Rabies in the World

2. Rabies in China
   1. Disease Situation
   2. Reasons for Rabies Spreading
   3. Control Practices
Rabies in the World

Animal Rabies (Red)  Human Rabies

Global Cases: Asia: $\sim31\,000$ (56%), Africa: $\sim24\,000$ (44%), Other Continents: $<500$ (WHO)

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Human Rabies in Asia: ~ 31,000 Death per year.

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Rabies in China

Geographical Distribution of HC in 2011 —— MOH

- endemic areas distributed in the south
- mainly in rural area (90%)
- transmission source: rural dogs, 95%
1. Disease Situation

- Endemic in southern provinces
- 90% of human cases infected by dogs, 5% by cats, 5% by wild animals or livestock.
- About 15 million people vaccinated every year, accounting for 80% of the vaccine usage in the world. The expenses amount to 5 billion RMB per year.
1. Disease Situation

- 1950s, the first peak period of human Rabies, the highest death cases reached 1942 in one year.
- 1980s, the second peak period of Human Rabies, the average death cases were 5537 per year, 7037 people died of rabies in 1982.
- 2000s, the third peak period, 3303 victims died of rabies in 2007.
1. Disease Situation

Number of HC from 2001 to 2012 (China)
2. Reasons for Rabies Spreading

- 100 million dogs in China, and average vaccination rate is lower than 30%.
- Large population of dogs and cats in rural areas.
- The rate of vaccinated dogs in rural area is lower than 30%.
- The main source of human infection are dogs especially, the stray dogs.
- Wild animals are important carrier of RV.
- Lack of awareness in the public
2. Reasons for Rabies Spreading

Stray dogs are the main source of Human Infection
3. Control Practices

MOA        MOPS        MOH

Dog Administration Office

National Rabies Reference Lab, FAO, OIE, NGO

Cooperation

Provincial Government

County-level Government

Township-level Government

Village level

Public Security Bureau

County-level Public Security Bureau

Township-level Police Station

County-level AB

County-level Veterinary Station

Township-level Ab

Township-level Health Station

Village Security Person

Village Para-veterinarian

NGO

Rabies Prevention and Control System

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3. Control Practices

MoA: Rabies vaccination and surveillance since 2005.
MoH: Improved accessibility to PEP in most cities and counties;
MoPS: Responsible for dog management. In urban areas, a well-established dog registration with vaccination is in place at the owner’s expense.
The vaccinated dogs usually labeled with ear tags (rural areas) or biochips (some urban areas).
3. Control Practices

Establishment of the Dog Administration Office
3. Control Practices

3.1 Laws, Regulations and Plans

- Law of Animal Epidemic Control, P.R. China, 2008
- National Standards and regulations
- Local Regulations
3. Control Practices

3.2 Vaccination Program

- It is required that all dogs should be vaccinated. In fact, the percentage of dogs vaccinated in cities is higher than 70%, but only 30% in rural areas.
- It is compulsory to register dogs raised in city by local Bureau of Public Security.
- Vaccination certificate is prerequisite for dogs registration.
3. Control Practices

3.3 Surveillance Program

- Targeted surveillance in 15 highly endemic provinces
  National Rabies Surveillance Program has established surveillance sites in 15 highly endemic provinces
- Compulsory sample collection after dog biting
3. Control Practices

3.4 Technical Training

Training on brain sample collection

A vet is filling up the questionnaire
3. Control Practices

3.5 Public Awareness

- PPT, video, website, newspaper, leaflet and poster

Educate primary school students (China-Canada Livestock Health Extension Services Project)

Donate notebooks to students (FAO ECTAD China Office)
On-Site Education

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3. Control Practices

3.6 Cross-sectoral cooperation

- Cooperation between MOA, MOH, MOF and MOPS
- Annual Rabies Conference
- Annual national Communication between MOA and MOH
- Zoonosis Conference every 2 years
- International Cooperation
3. Control Practices

3.7 Constraints and Challenges

- Lack of effective coordination mechanism for rabies at township-level
- Public awareness need to be improved, especially in rural areas.
- Stray dogs and wild animals are difficult to control.
- Low vaccination coverage in rural areas.
3. Control Practices

3.8 Future Plan

- Multi-sector Action (MOA/MOH/FAO/WHO/OIE/NGOs)
- Increase vaccination coverage
- Sustainable epidemiologic investigation (FEPTV project)
- Identification systems for dogs and cats
- Improve PEP (Post exposure prophylaxis)
- Public awareness
- Professional training
Human Health, Animal Health
One Health

Thank you!