Current situation of Rift Valley Fever in Egypt

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Ministry of Health and Population
Egypt
27-29 January, 2009
Overview

- Introduction
- Disease in humans
- Outbreaks in Egypt
- RVF surveillance activities/MOHP
- Assessment of RVF preventive activities/MOHP
- Needs and researches
Rift Valley Fever (RVF) is an arthropod-borne, acute, fever-causing viral disease of sheep, goats, cattle and people.
Disease in humans

- Incubation period 2-6 days
- Many are Inapparent, or have mild flu-like symptoms
- Others may have fever, headache, myalgia, nausea and painful eyes
- Retinopathy(1-10%), loss of visual acuity
- Recovery 4-7 days
Transmission to Humans

Vector
- Bite of mosquito infected with RVF

Direct Contact
- Tissues or body fluids of infected animals
  - Handling birthing tissues, meat

Aerosol
- Breathing in the virus during slaughter of infected animals or during the birthing process

Oral; not very common
- Drinking unpasteurized milk from an infected animal

Does not spread from person-to-person
RVF in Egypt
1977-2003
Occurrence of RVF

Rift Valley Fever

Mauritania 1987, 1998

Egypt 1977-8, 1993

Saudi Arabia, Yemen 2000

Somalia 1997-8

Kenya 1930-1, 1968, 1997-8


Tanzania 1997-8


Mozambique 1969

Madagascar 1990-1

Namibia 1955, 1974-6

South Africa 1950-1, 1974-5

WHO CDS
<table>
<thead>
<tr>
<th>Year</th>
<th>No. Of cases IgM +ve</th>
<th>Governorate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1993</td>
<td>128</td>
<td>Aswan, Ismailia, Sharkia, Giza, Qena</td>
</tr>
<tr>
<td>1994</td>
<td>223</td>
<td>Dakahlia, Sharkia, Damitta, cairo, Aswan, Menofia, Behira, Kafrelshiekh, Qailiobia, Giza</td>
</tr>
<tr>
<td>1995</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>1996</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>1997</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>1998</td>
<td>111</td>
<td>Dakahlia, Sharkia, Ghabia, Aswan, Menofia, Behira, Kafrelshiekh, Qena</td>
</tr>
<tr>
<td>1999</td>
<td>44</td>
<td></td>
</tr>
<tr>
<td>2000</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>2001</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>2002</td>
<td>18</td>
<td>Aswan, Damitta, Qena, Menofia</td>
</tr>
<tr>
<td>2003</td>
<td>191</td>
<td>Behira, Kafrelshiekh, Dakhalia</td>
</tr>
<tr>
<td>2004</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>2006</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>2007</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>2008</td>
<td>0</td>
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</tr>
</tbody>
</table>
Rift Valley Fever outbreak by Governorate
Egypt 1977

- 18,000 cases
- 598 deaths
Rift Valley Fever outbreak by Governorate
Egypt 1993

128 cases
Rift Valley Fever outbreak by Governorate Egypt 2003

191 cases
Positive (IgM) cases of Rift Valley Fever by Month, Egypt 2003

Total No.=191
Positive (IgM) cases of Rift Valley Fever by Outcome, Egypt 2003

Total No. = 191

- Improved: 153 (80%)
- Died: 38 (20%)

No. of Positve (IgM) cases of Rift Valley Fever by Outcome, Egypt 2003.
Positive (IgM) cases of Rift Valley Fever by Governorate, Egypt 2003

<table>
<thead>
<tr>
<th>Governorate</th>
<th>No. of Cases</th>
<th>Died</th>
<th>% Deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>Behira</td>
<td>81</td>
<td>11</td>
<td>13%</td>
</tr>
<tr>
<td>KafElshiekh</td>
<td>72</td>
<td>24</td>
<td>33.3%</td>
</tr>
<tr>
<td>Dakahlia</td>
<td>38</td>
<td>3</td>
<td>7.9%</td>
</tr>
</tbody>
</table>

Total No. = 191
Positive (IgM) cases of Rift Valley Fever by Age Group, Egypt 2003

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Total No.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt;5</td>
<td>1.6</td>
<td>1.6</td>
</tr>
<tr>
<td>5&lt;15</td>
<td>11</td>
<td>11.0</td>
</tr>
<tr>
<td>15&lt;30</td>
<td>40.3</td>
<td>40.3</td>
</tr>
<tr>
<td>30&lt;45</td>
<td>17.8</td>
<td>17.8</td>
</tr>
<tr>
<td>45&lt;60</td>
<td>15.7</td>
<td>15.7</td>
</tr>
<tr>
<td>60&lt;</td>
<td>13.6</td>
<td>13.6</td>
</tr>
</tbody>
</table>

Total No. = 191
Positive (IgM) cases of Rift Valley Fever by Gender, Egypt 2003

Total No. = 191

- Male: 60%
- Female: 40%
RVF surveillance activities/ MOHP

- RVF is one of the immediate notifiable diseases of the national communicable diseases surveillance system.
- Encephalitis became one of the immediate notifiable diseases nationwide after RVF outbreak in 2003.
- Both RVF and Encephalitis suspect cases are reported to MOHP on daily basis nationwide.
Number of positive cases of Encephalitis by Outcome, Egypt 2006, 2007, 2008

<table>
<thead>
<tr>
<th>Year</th>
<th>No. of cases</th>
<th>Died</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>1451</td>
<td>307</td>
</tr>
<tr>
<td>2007</td>
<td>1758</td>
<td>358</td>
</tr>
<tr>
<td>2008</td>
<td>1683</td>
<td>299</td>
</tr>
</tbody>
</table>
• Promote surveillance in Fever and ophthalmic hospitals for early case detection
• Training courses for health care providers on case definition, early detection, management
• Prepare rapid response teams at all governorate's levels
RVF surveillance activities/ MOHP

Cont’d

• Constant provision of laboratory diagnostic kits of RVF
• Serum testing for all suspect cases for IgG and IgM at CPHL/MOHP
• Monitoring and follow-up visits to fever and ophthalmic hospitals
• Develop a plan of action to evaluate the preventive programs for RVF, nationwide
• Collaboration with concerned parties eg. vector control Dept., local Administrative sector, environment affairs
• Collaboration with the Organization of Veterinary Services/MOA
• Distribute printed materials; flyers, posters on RVF for health care workers
Reported number of suspect cases of RVF Egypt, 2004-2008
Reported suspect cases of Rift Valley Fever, Egypt 2004-2008

<table>
<thead>
<tr>
<th>Year</th>
<th>No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>1329</td>
</tr>
<tr>
<td>2005</td>
<td>828</td>
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<tr>
<td>2006</td>
<td>571</td>
</tr>
<tr>
<td>2007</td>
<td>689</td>
</tr>
<tr>
<td>2008</td>
<td>1889</td>
</tr>
</tbody>
</table>
Reported suspect cases of Rift Valley Fever by Governorate, Egypt 2007-2008
Conduction of field visits in 14 governorates in 2007 - 2008 to:

- Health Directorate,
- Health districts,
- Fever hospitals,
- Ophthalmic hospitals,
- Veterinarian Health Directorates,
- Villages
Results of assessment by Vaccination Status, Egypt 2007-2008

Governorate

- Dammita: 97.8%
- Dakahlia: 94%
- Aswan: 85%
- Menofia: 78.4%
- Behira: 78%
- Red Sea: 78%
- Luxor: 76.3%
- Fayoum: 68.6%
- Kafr El Sheikh: 60.5%
- Sharkia: 58.1%
- Qena: 55.3%
- Gharbia: 51.3%
- Ismailia: 47.1%
- Banisulef: 29.3%
Needs and researches

• Enhance entomology surveillance

• Upgrade Vector Control Department
  - building capacity of personnel
  - Renovation of facilities at all levels
  - equipments/insecticides
Thank You