18.010

Contribution to the Study of the Prevalence of Brucellosis in Rwanda. Case Study of Huye District

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Keywords: Human Brucellosis; Bovine Brucellosis; Rose Bengal; Abortion; Stillbirth

Background: In Rwanda, Brucellosis has been reported since 1936 in cattle but very little information is available on its status in human beings. However, some cases of abortion and stillbirth of unknown origin are often reported in hospitals. One of the main symptoms of Brucella infection being abortion, the hypothesis of this study was that some cases of abortion and stillbirth were related to brucellosis.

Methods: A cross sectional study, involving 60 women with abortion and/or stillbirth from May to October 2006, was conducted. Blood specimens were taken at hospital and tested using the Rose Bengal plate test in order to determine the prevalence of Brucellosis among women with reproductive problems. Semi structured interviews and a questionnaire were allowed for the identification of risk factors.

Results: A total of 60 women presented themselves at Huye (Southern Province, Rwanda) main Hospitals with abortion and/or stillbirth during the period of study (May-October 2006). Fifteen (15) of them (25%) were found to have a positive serology towards Brucella sp. The investigations revealed that seropositivity among women is more related to the consumption of raw milk (46.7%) than in a direct contact with animals (13.3%), and that it is more in rural areas than in urban ones. These investigations also revealed that brucellosis is not taken into consideration in the hospitals of the Huye District. In animals, only 2 (7.4%) sera of the tested were positive.

Conclusion: Human brucellosis exists in Huye District (Rwanda) and might be related to some reproductive problems in humans. Indeed, it has been found in 25% of women with abortion and/or stillbirth.

As the disease is shown to be a public health threat, education (sensitization) of people on behavior change and control of the disease in animals and humans were recommended to rid Rwandan people from brucellosis.

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18.011

Knowledge, Risk perception, Poultry workers and Avian influenza

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Background: In February 2007, the Veterinary Laboratories Agency (VLA) confirmed the presence of highly pathogenic avian influenza (H5N1) H5N1 on a turkey farm in Suffolk, UK. Public health response to the incident led to offering of oseltamivir and the seasonal flu vaccination to 482 people involved in the outbreak.

Understanding poultry workers’ knowledge level and compliance to public health preventive measures to prevent spread of AI is an essential step in designing future effective health promotion/prevention strategies to this population group. This outbreak gave us the opportunity to study this aspect.

Method: A cross-sectional survey was conducted using an interviewer administered questionnaire to poultry workers involved in the outbreak.

Results: A total of 126 poultry workers completed the questionnaire. The group was divided into two - pre and post exposures - based on receiving oseltamivir and the timing of risk exposure during the outbreak.

The two risks groups demonstrated significant difference in knowledge about the transmission of the infection to humans (p<0.05). Although all the participants were categorized as high risk based on their exposures, only 11% (14/126) of workers perceived themselves to be at high risk. The majority (89%) of the participants perceived their risk to be small or very small. The level of advice given by health care worker during the outbreak was considered satisfactory by the majority (87.1%). Most of the respondents complied fully with both antiviral (97%) and personal protective equipment (PPE) (96%).

Conclusions: Knowledge on avian flu and the perception of their risks to avian flu needs to be improved in a population at higher risk. However the compliance with interventions was satisfactory in this study.

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18.012

Light Microscopy of the Hooklets of Protoscolices of Hydatid Cysts Infecting Sheep and Camels from Misurata, Libya and Their Possible Role in ‘Parasite Strain’ Recognition

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Larval hooklet morphology is considered as one of the important criterions for identification of different Echinococcus granulosus strains. During the present work, the hooklets obtained from fertile hydatid cysts of infected organs in sheep and camels collected from Misurata, Libya
were studies for number, arrangement, measurements and morphological features by light microscope. Differentiation between hooklets developed in liver, lung and spleen hydatid cysts from camels, and hepatic and pulmonary cysts was also considered. Measurements were done by the calibrated eyepiece. Differences in protoscolices and their hooklets measurements in different hosts and different organs including length and width of protoscolices and total, blade, handle lengths and width of hooklets as were statistically analyzed to illustrate their significance. Results obtained indicate the presence of different 'Strains' pf E. granulosus in Libya regarding the host or the site on infection of these hosts. In addition to the large and small rings of rostellar hooklets, very small and even tiny hooklets were illustrated, which may be indicative of specific strains of the parasite.

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18.013
Avian Influenza (H5N1) Outbreak in Suffolk - The Rapid Setup of a Database
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Aim: To describe lessons identified from the rapid setup of a dataset of at-risk people requiring prophylaxis and seasonal influenza vaccination during an outbreak of highly pathogenic H5N1 Avian Influenza in a poultry farm in Suffolk.

Methods: Administrative and clinical data were collected in paper form at the clinic dispensing prophylaxis to exposed people. Fields on the form provided headings for an Excel spreadsheet. Data was entered by several staff onto their uniquely-named copies, appended to create the main dataset. The principal spreadsheet was used to create other spreadsheets for identifying at-risk people requiring further prophylaxis and to collect data on seasonal influenza vaccination, nationality and employer. Microsoft Access was used to link spreadsheets but the primary spreadsheet remained in Excel and was used to monitor uptake of prophylaxis and vaccination, notifying at-risk people of clinics, providing GPs and Health Protection units with lists of people receiving prophylaxis, and identifying who to telephone for further treatment.

Results: The main dataset contained 46 fields and 482 records.

- Data entry suggested some revisions needed to be made to the paper form, e.g. exact time prophylaxis was given and clarity regarding pre and post-exposure status.
- Spreadsheets were quick to develop and easy to use but multiple spreadsheets
- complicated file management.
- Data entry should begin earlier, e.g. at the clinic providing prophylaxis.
- Correcting inconsistencies in postcodes and GP practices was time-consuming and details should be entered as accurately as possible at the clinic.
- Data analyses needed to be timely to meet requests for information during the outbreak, e.g. nationalities of at-risk people.

Conclusion: A rapid database setup following a major incident is crucial for the management and follow-up of at-risk people. Our experience provided valuable learning points and will help us prepare for future possible Avian Influenza outbreaks.

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18.014
Comparison of RB51 & S19 Vaccines in Control and Prevention of Brucellosis in Dairy Farms of Tehran Province (Iran), During 1997—2007
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Keywords: Brucellosis; RB51; S19; Surveillance

Brucellosis is one of the most important zoonotic infections, with obvious economical and public health importance. In spite of passing a long time from the beginning of control and prevention program in Iran, there are many implicated problems about that (especially in the field of vaccination, as one of the best and practical means of the control programs). RB51 new vaccine has notable characteristics. For example, since the lack of O-antigen, doesn’t induce disturbing antibodies in routine diagnostic tests of Veterinary Organization. RB51 has used since 2003 in Iran and has completely replaced the classical S19 vaccine since 2007. With special attention to this subject and lack of the potent surveillance system for bovine Brucellosis in Iran, performing of this statistical investigation seems to be necessary.

All data about Brucellosis control program (1997—2007) in Tehran province farms were obtained by referring to the Tehran Veterinary Organization and after summarizing, were organized in the related charts and diagrams and analyzed by SPSS.15.

Clearly, with increasing the use of new vaccine since 2003, occurrence of the disease has decreased (occurrence: 0.368% in 2003 & 0.082% in 2007 with −0.2 Pearson C.C.) also, it was seen that use of S19 increased the number of suspected cases of bovine Brucellosis (with +0.416 Pearson C.C.). These findings emphasize the high potency of RB51 vaccine in the control and preventing program of bovine