

fied 19.2% (24/125) more positive cases, 50% (12/24) were HPV18, 37.5% (9/24) HPV16 and in 12.5% (3/24) amplification of more than one genotype occurred.

**Conclusion:** In conclusion, target region for amplification of HPV DNA is a determinant factor in the molecular diagnosis of cervical infection. Moreover, quantification of the viral load by *qRT-PCR SYBR Green-L1* assay allows to determine HPV infection, viral load, genotyping especially in women with high risk lesions by PAP smear.

doi:10.1016/j.ijid.2010.02.674

84.044

#### Rabies cases in dog markets in Kaduna state, northern Nigeria

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**Background:** The study was conducted to determine the potential role of dog markets in the epidemiology of rabies in Kaduna.

**Methods:** Thirty dog brain samples were collected from different dogs brought to the dog markets in Kaduna State, Nigeria. The dog brain tissues were tested using several assays: Direct Rapid Immunohistochemistry Test (dRIT); Direct Fluorescent Antibody Test (DFA); the Mouse Inoculation Test (MIT); and a Reverse Transcriptase-Polymerase Chain Reaction Test (RT-PCR). Both apparently healthy and clinically ill dogs were brought to the markets.

**Results:** Fifteen (50%) samples tested positive for rabies virus antigens. All the samples tested positive by the dRIT and DFA tests, with +4 staining intensity and antigen distribution.

The inoculated mice developed signs of rabies by day 9 post inoculation via the MIT. All positive samples were sequenced after RT-PCR detection. Detected rabies viruses were similar to other variants reported previously from Nigeria.

**Conclusion:** In this preliminary study, the presence of rabies was confirmed in the local dog markets, and may play an important role in the spread of rabies. Both the butchers and the buyers are at risk during the processing and sale of the dog meat. Additional work should be done at other animal markets throughout Nigeria. Greater awareness is needed on the danger rabies may pose on both human and animal populations from such activities.

doi:10.1016/j.ijid.2010.02.675

84.045

#### Clinical and epidemiological aspects of mumps virus infection

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**Background:** Mumps is an acute viral infection characterized by a non-specific prodrome, followed by acute onset of unilateral or bilateral tender swelling of parotid or other salivary glands. The aim of the study is to describe an epidemic form of mumps viral infection in the region of Strumica.

**Methods:** Retrospective clinical study of 1248 mumps cases diagnosed in the last 2 years in the Department of Infectious Diseases in Strumica.

**Results:** Between 1 March 2008 and 31 March 2009, a total of 1248 mumps cases were notified in our department. In total, 533 cases were hospitalized for clinical indications. The majority of patients had epididymo-orchitis 253 (47%). Unilateral involvement was found in 20-30% of patients, whereas bilateral involvement occurs in fewer than 2% of cases. Other localizations of the mumps infection were unilateral parotitis 225 patients (42,2%), meningitis 43 (8,1%), and pancreatitis 12 (2,25%). The peak incidence of mumps in 2008 was in June 290 patients, July 225 and May 187 patients.

Of the 1248 reported cases of mumps, 49,6% were between 15-19 years old, and 416 (79%) were male. Vaccination data were available and 96% of them had been vaccinated. Mumps vaccination coverage has been high since its introduction in 1983, except for a period in the 1992 and 1993. Individuals born in 1992-1993 had coverage only with one dose of mumps vaccine. Patients who had documentation of receiving only one dose of vaccine were at greater risk than those who received the doses. Treatment was supportive, symptom-based. No deaths have been reported.

**Conclusion:** The main strategies for controlling a mumps outbreak are to define the risk population and transmission setting, identify and isolate suspected cases, and to rapidly identify and vaccinate susceptible persons. Vaccination is the cornerstone of mumps prevention.

doi:10.1016/j.ijid.2010.02.676

84.046

#### Spatial and temporal trends of the Lassa fever epidemic in Nigeria 2001 – 2009, with particular reference to the Edo State experience

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**Background:** The initial interest following the report of the Lassa fever (LF) epidemic in Nigeria in 1969 waned considerably unlike in the Mano River Basin countries of Sierra

Leone, Liberia and Guinea. The NLFSFN was formed in 2007 to meet the need for a structured and sustained response to the control of the epidemic in Nigeria. We describe the spread of the epidemic from 2001-2007, the change in its seasonality, the rise in prevalence and the decline in case fatality rate (CFR) among hospital patients.

**Methods:** Review of surveillance data at the Federal Ministry of Health and the Institute of Lassa Fever Research and Control, ISTH, Irrua and review of the case load and outcome of suspected LF at the ISTH. The diagnosis of LF was based on defined criteria.

**Results:** From 2001 – 2006, 1-3 (average 1.7 or 5%) of the 36 States and the Federal Capital Territory reported LF compared to 7-12 (average 9.7) States in 2007-2009 (OR (95% CI)=0.26 (0.13, 0.53),  $p < 0.01$ ). Suspected LF constituted 0.53% of 41,440 admissions in 2001-06 compared to 2.16% of 35,484 admissions in 2007-09 (RR (95% CI)=1.7 (1.64, 1.76),  $p < 0.001$ ). Ninety (76%) of 118 cases of suspected LF managed at the ISTH in 2001-04 were seen in January to March compared to 49/103 (48%) in 2004-05 (RR (95% CI)=1.9 (1.32,

2.62),  $p < 0.001$ ) and 271/765 (35%) in 2007-09 (RR (95% CI)=1.56 (1.09, 2.24),  $p = 0.02$  for 2007-09 versus 2005-06). CFR from suspected LF was 97/221 (43.9%) in 2001-06 versus 102/768 (13.3%) in 2007-09 (RR (95% CI)=0.61 (0.53, 0.7),  $p < 0.001$ ). Overall, the diagnosis of LF was confirmed in 16-25% of cases of suspected LF in 2008-09. In each of the 3 Senatorial Districts in Edo State, the prevalence of suspected LF as seen at the ISTH increased by >149% from 2008 – 2009 while that of confirmed LF increased by >73%.

**Conclusion:** Both awareness of the epidemic and the index of suspicion in clinical diagnosis have increased as immediate gains from the LF control activities of the NLFSFN. The seasonality of LF has changed while the prevalence in Nigeria may have increased, perhaps in part due to the increased awareness and index of suspicion. Assistance of the international community is required to scale up the control initiatives, particularly with regard to capacity building in surveillance, laboratory diagnosis and case management.

doi:10.1016/j.ijid.2010.02.677

#### 84.047

##### Immunocompromised patients with shingles - Therapeutic approach

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**Background:** The complexity of the therapeutic approach of the immunocompromised patients is determinate by the capacity of their immunoresponse corresponding with the arising infection. Among the patients with shingles with a comorbide immunodeficiency syndrome such as primary hypogamaglobulinaemia or secondary lymphopenia as a result of a long lasting immunosuppressive therapeutic treatment that is even more complex, due to threatening viral generalization, including visceral generalization of the

illness as well as dermal and pulmonary bacterial superinfection.

**Methods:** During the 6 year long period, 20 immunocompromised patients with shingles were hospitalized and healed in our department. Dermal eruptions were spreaded on several dermatoms, in 8 patients with dermal generalization. Visceral generalization appeared in 4 cases with all consecutive disorders. Diagnostic criteria, including complete blood count (CBC), sedimentation, chemistry profile of renal and liver function tests, bacteriological (inducted expectorated) sputum sample testing, blood culture, pleural fluid analysis, chest xray and tomography, were determining moments in the diagnostic procedure and therapeutic treatment.

**Results:** Appearance of the Acyclovir (for oral or i.v. application), as a systemic virostatic with high efficiency, dramatically changed the evolution of the illness in this group of patients, their clinical symptomatology and expression, with the drastic reduction of the sequels and the epilogue of the illness. Due to the effect of viral replication blocking, its efficiency is evident, especially if it is applicated within the first 3 days of the illness (24-48-72 hours after the appearance of the first symptoms) at the period of the most intense viral replication. These patients were parenterally/peroral treated with Acyclovir (Virolex) and antibiotics - Penicillines, II and III generation Cephalosporines, Aminoglycosides, Macrolides, Quinolones, Clindamycin, Lincomycin, Co-trimoxazol.

**Conclusion:** All patients showed satisfying resolve of the dermal lesions, resolution of the pulmonary inflammation and correction of the chemistry profile of renal and liver function as well as abrogation of all clinical symptoms and subjective difficulties. Is it necessary to point out the importance of the substitutional and symptomatic therapy that have to be implemented simultaneously with antiviral and antibiotic therapy, as the only possible and satisfactory way of treatment of this group of patients along with necessary attention and care.

doi:10.1016/j.ijid.2010.02.678

#### 84.048

##### Peculiar case of herpetic viral encephalitis

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**Background:** Herpetic viral encephalitis is a severe disease, especially in neonates and immunocompromised hosts. HSE with HSV 2 appears more frequently in persons younger than 20 and older than 50. Immunossupresion may be the cause of herpes simplex viral encephalitis.

**Methods:** The case presentation is supported by the information found in this patient's files from three medical services where he was admitted: Clinic of Internal Medicine, Neurosurgery, and finally Clinic of Infectious Diseases of the University of Oradea.

**Results:** A 16 years old rural male patient, presented starting with September 2009 headaches, night sweating, lack of appetite, vomiting, abdominal pain, diarrhea and