

dents, 64.6% were aware of the disease TB, 41.9% were aware of bovine TB while 39.7% knew bovine TB was zoonotic and 52% have a preference for small ruminant as source of meat. Out of the 72.5% (166/229) that keep livestock, 75.9% (126/166) do so in close proximity with animals.

Conclusion: Tuberculosis is prevalent in small ruminants in Kaduna State, inferring serious public health problems. This is the first time small ruminants are screened for TB in Nigeria. In view of the common livestock management practices in Nigeria, small ruminants could play an important role in zoonotic transmission of *M bovis*. There is therefore the need to educate the populace on zoonotic implication of bovine tuberculosis and targeted control measures involving population at risk should be put in place.

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Tuberculosis epidemiology trends in Armenia

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Background: Tuberculosis (TB) in Armenia is one of the most serious public health problems. The Ministry of Health has the overall responsibility for TB control in the country. TB control interventions in Armenia are guided by the National TB Control Program for 2007 – 2015 years.

Methods: The article is based on the TB epidemiological data from National TB Control Office register.

Results: In 2010 incidence of new TB cases in general population (per 100 000) was 41.3 and decreased by 9.2% compared to the incidence of 2009.

Out of all registered TB cases 75% were new cases and 25% were re-treatment cases. In 2010 1329 new TB cases were notified and out of those 339 were new sputum smear-positive TB cases. The incidence of sputum smear-positive pulmonary TB in 2010 in general population was about 10.4 per 100 000.

In 2010 incidence of new TB cases among children was 10.7 per 100 000 population compared to 12.2 per 100 000 in 2009.

The notification rate was 43.4 per 100 000 in urban population and 37.5 per 100 000 in rural population.

In 2010 TB mortality rate was 2.9 per 100,000 population and decreased by about 25% compared to 2009. Among those who died from TB in 2010 57% were primary TB cases and 18% were diagnosed after autopsy.

Treatment success rate for new smear positive cases equals to 73.3% for 2008 cohort and 72.5% for 2009 cohort. The Drug Resistant TB treatment in the country was start in 2010.

Percent of treatment failures was increasing since 2005 till 2007 and majority of those failed treatment due to DR TB and now they are enrolled on second line treatment.

Conclusion: Armenia now is one of the 18 high priority countries for TB control in the WHO European Region and also among the 27 multi-drug resistant TB burden countries in the world.

The National TB Control Program of Armenia now is in process of strengthening essential DOTS elements for prevention drug resistant TB forms, rising TB case detection rate, providing compre-

hensive social support and psychological assistance to the patients in order to ensure treatment adherence.

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Hyponatremia in central nervous system tuberculosis

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Background: Indolent course and unspecific clinical picture, especially among patients without pulmonary TB, make central nervous system tuberculosis (CNS TB) difficult to diagnose. There is a lack of laboratory parameters orientating diagnostic process on CNS TB suspicion. The cerebrospinal fluid (CSF) findings may also be inconclusive. The answer of the question if hyponatremia may suggest CNS Tb was the aim of the study.

Methods: We investigated prevalence of hyponatremia and its influence on disease course; 52 adults with confirmed CNS TB were included. The initial serum sodium concentration was analyzed. The presence and treatment methods of hydrocephalus, need for intensive care unit (ICU) admittance and in-hospital mortality were compared in patients with hyponatremia (serum sodium concentration <135 mEq/L) and normonatremia.

Results: Hyponatremia was observed in 34 (65.4%) patients on initial measurement, in 8 (15.4%) of them it was severe with serum sodium concentration ≤ 125 mEq/L. Mean age of hyponatremic and normonatremic patients was similar (49,4 vs. 52 yrs). Compared with patients with normonatremia, those with hyponatremia presented hydrocephalus (14/41.2% vs. 6/33.3%) and were treated with repeated lumbar punctures to remove CSF or were subject to lumbar drainage more often (12/35.3% vs. 4/22.2%). Permanent ventriculo-peritoneal shunts were implanted in 7 patients (6/14.7% vs. 1/5.5%). Patients with hyponatremia had more co-morbidities (10/29.4% vs. 3/16.7%). The need of ICU hospitalization was similar in both groups (10/29.4% vs. 6/33.3%). In patients with severe hyponatremia mortality rate approached 50%.

Conclusion: The majority of patients with CNS tuberculosis presented hyponatremia on initial measurement, therefore the presence of hyponatremia may suggest CNS Tb. The need for permanent cerebrospinal fluid shunt implantation was observed more often among patients with hyponatremia. Advanced hyponatremia on initial measurement was associated with high mortality rate in patients with CNS tuberculosis.

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