Pilot program for surveillance of congenital Chagas disease in Colombia 2010-2011


Background: Colombia is an endemic country for Chagas disease, however, it does not have a surveillance program in pregnant women and their children. Migration from rural to urban areas, improvement of vector and transfusion control, and recent reports on some congenital cases suggest the relevance of congenital transmission research.

Methods: From January 2010 to December 2011, a cross sectional study was conducted in five endemic departments of Colombia. 4,417 pregnant women were enrolled in primary care institutions. They were tested by ELISA and IFA IgG anti-T. cruzi, and answered a validated questionnaire. A monitoring program was developed. It included home visits, clinical evaluation and laboratory tests -serology, PCR and hemoculture- for positive women and their children, from birth to one year of age. The prevalence of complications developed and interventions used.

Results: Chagas disease was found in 119/4417 women, with overall prevalence of 2.70% (95%CI: 2.0-2.9). The prevalence in each department was: Arauca 2.15% (95%CI: 1.19-3.54), Boyacá 3.20% (95%CI: 1.83-5.18), Casanare 3.97% (95%CI: 2.84-5.28), Meta 0.23% (95%CI: 0.03-0.76) and Santander 3.36% (95%CI: 2.53-4.36). Some factors associated with infection in pregnant women, the incidence of congenital cases in children and the risk factors were estimated. A performance evaluation of the program was carried out by monitoring access to health care, health insurance and tracking cases.

Conclusions: Chagas disease in pregnancy is important within rural and urban areas in Colombia. Health insurance problems were identified as barriers to diagnose, treat and monitor Chagas disease in women and newborns. National regulations are needed to achieve coverage for mothers, newborns and relatives.

Necrotizing fasciitis in New Zealand - risk factors, microbiological findings and outcomes in a large case series

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Background: The incidence and mortality of necrotising fasciitis (NF) are increasing in New Zealand (NZ). Triggered by a media report that traditional Samoan tattooing was causing NF, we conducted a chart review to investigate the role of this and other predisposing and precipitating factors and to document microbiology, complications and interventions of NF in NZ.

Methods: We conducted a retrospective review of 299 hospital charts of patients discharged with NF diagnosis codes (International Classification of Diseases codes M7250 to M7269 in ICD-10-AM version 1, 2 and 3) in eight hospitals in the North Island of NZ between 2000 and 2006. A case of NF was defined as one which had a discharge diagnosis code of NF plus at least one of the following: operation notes clearly indicating presence of NF, histopathology of debrided tissue showing necrosis, or autopsy showing local necrosis. We documented and compared by ethnicity the prevalence of predisposing and precipitating conditions, bacteria isolated, complications developed and interventions used.

Results: Out of 299 charts, 247 fulfilled the case definition. NF was most common in elderly males. Diabetes was the most frequent co-morbid condition, followed by obesity. Nearly a quarter of patients were taking non-steroidal anti-inflammatory drugs (NSAID). Traditional Samoan tattooing was an uncommon cause. Only four people developed NF following this procedure. Streptococcus pyogenes and Staphylococcus aureus were the two commonly isolated bacteria. Shock, renal failure, coagulation abnormality and multi-organ dysfunction were common complications. More than 90% patients underwent surgical debridement, 56% were admitted in intensive care units and slightly less than half of all patients had blood product transfusion. One in six NF cases had amputations and 23.5% died.

Conclusion: This chart review found that the highest proportion of NF cases were elderly males with co-morbidities, particularly diabetes and obesity. Traditional Samoan tattooing or other body piercing procedures were uncommon precipitating events. The role of NSAID needs further exploration. NF is a serious disease with severe complication, high case fatality and considerable health care resource use.

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