

Interpretation: We found that Peruvian female community leaders were knowledgeable regarding osteoporosis and reported high health motivation. Due to their investment in their communities, this population should be a key component of future osteoporosis-related community-based studies and interventions. Finally, we were able to demonstrate that a larger study would be feasible and even desired within this population.

Source of Funding: This study was supported by GCC, CIEN-CIATIVA from the Peruvian Council of Science and Technology (CONCYTEC) and London School of Hygiene and Tropical Medicine.

Abstract #: 1.032_NCD

A Systematic Review of the Diseases Interaction between Helminthic Infections and Diabetic Mellitus

N.S.N. Htun, N. Probst-Hensch, C. Daubenberg, P. Odermatt; Swiss Tropical and Public Health Institute, Basel, Switzerland

Background: The hygiene hypothesis indicated that a lack of exposure to microorganisms or parasites during childhood increases the chances of having autoimmune diseases due to alteration of natural immune system development. The purpose of the review is to summarize the current knowledge and updates of any epidemiological association between helminthic infections and their interactions on diabetic metabolism.

Methods: We performed a systematic literature review from MEDLINE database to examine epidemiological relationship between the helminthes and the diabetic status. All articles were included without restriction on language, publication date, study settings, clinical signs, laboratory parameters and disease complications. The published articles were screened and validated by using PRISMA criteria.

Findings: We retrieved 11 articles (ten cross-sectional studies and one cohort study) which mentioned the frequency distribution of helminthic infections among diabetic and non-diabetic group or the prevalence of diabetes mellitus among helminth infected and non-infected ones. The prevalence rates and the intensities of diseases were compared between studied groups. Majority of studies revealed a protective effect of helminthes against both type 1 and type 2 diabetes mellitus while only a few studies identified a positive association that specific helminthes increasing the disease severity in diabetic patients.

Interpretation: Well-designed longitudinal studies are still needed to identify the causal link of these associations. The helminth related compound or ova of the helminthic species have been used for treatment of autoimmune diseases such as Crohn's disease and ulcerative colitis and if helminthes protective mechanism on blood sugar homeostasis is significant, a helminthic related substance can shortly be an alternative therapeutic regime in diabetic treatment. However, on the other hand, we should also be aware of the impact of deworming on blood sugar metabolism especially, in the tropical and subtropical countries which are currently undergoing a nationwide mass deworming program to reduce the morbidity of helminth related health problems.

Source of Funding: "None".

Abstract #: 1.033_NCD

Funding Flows for the Global Initiative for Children's Surgery (GICS): Lessons Learned

L.F. Goodman¹, A. Linden², G. Jensen³, N. Kaseje⁴, N. Wright⁵, E. St-Louis⁶, Y. Yousef⁷, H. Wissanji⁸, M. Cheung⁹, D. Ozgediz¹⁰, D. Poenaru¹¹, K. Lakho¹², S. Greenberg¹³, E. Ameh¹⁴, K. Oldham¹⁵, S. Bickler¹⁶, D. Farmer¹⁷; ¹University of California Davis, Sacramento, CA, USA, ²University of Chicago, Chicago, USA, ³University of California, Davis, Davis, USA, ⁴Hôpitaux Universitaires Genève, Geneva, Geneva, Switzerland, ⁵King's College, London, United Kingdom, ⁶McGill, Montreal, Canada, ⁷University of Montreal, Montreal, Canada, ⁸Johns Hopkins University, Baltimore, USA, ⁹Yale, New Haven, USA, ¹⁰Yale University, New Haven, USA, ¹¹Bethany-Kids at MyungSung Christian Medical Center, Addis Ababa, Ethiopia, ¹²University of Oxford, Oxford, United Kingdom, ¹³Medical College of Wisconsin, Milwaukee, USA, ¹⁴National Hospital, Abuja, Nigeria, ¹⁵Children's Hospital Wisconsin, Milwaukee, USA, ¹⁶University of California San Diego, San Diego, CA, USA, ¹⁷University of California, Sacramento, USA

Background: Despite surgical conditions accounting for an estimated 30% of the global burden of disease, and children comprising up to 50% of the population in the lowest-resource settings, the funds available for global children's surgery delivery are limited and poorly defined. Further, the focus of prior global health efforts has traditionally been determined by funding, often discounting the experience and priorities of local providers. Thus, our goal was to describe the funding associated with a unique initiative dedicated to improve children's surgical care, the Global Initiative for Children's Surgery (GICS), which prioritizes the perspectives of providers from low-resource settings.

Methods: A retrospective review of funding mechanisms was performed over the first 6 months of the initiative, April 2016 to September 2016. Funding was grouped and analyzed according to donor. Charities, professional organizations, universities, and transnational organizations focused on children's surgery were invited to participate and contribute to costs associated with two meetings in May, 2016 (London) and October, 2016 (Washington DC). Organizations were encouraged to contribute either to a general fund or to directly support providers from these areas with which they had established contacts.

Findings: Professional organizations, non-governmental organizations and academic institutions each contributed almost equally (28.4%, 28.1%, 25.2%, respectively.) The remainder of funds (18.3%) came from private individual donors. Specialty organizations from anesthesia, neurosurgery and orthopedics contributed. Funds supported the travel costs for providers from low-resource environments to participate in two global meetings. Most organizations preferred to sponsor providers from resource-poor areas with whom they had a previous working relationship. Professional organizations donated administrative time, and the remainder of the organizational work was done on a pro-bono basis.