OVERVIEW

Osteoporosis has been a topic of medical interest for nearly 20 years in Colombia. The national association, Asociacion de Osteologia y Metabolismo Mineral (ACOMM), was founded in 1994 by rheumatologists and endocrinologists interested in learning about and understanding this new field of medicine that was booming worldwide.

At present, ACOMM has continued to be very important in the field of continuing medical education both at basic and advanced levels. Nevertheless osteoporosis is not a public health priority in Colombia, where basic health problems such as maternal morbidity and mortality, infant mortality, malnutrition, vaccination and other health issues consume most of the nation’s health budget. Other chronic and high cost entities such as cancer, HIV, diabetes mellitus and cardiovascular disease, also take a high percentage of the health budget.

The lack of unified central healthcare statistics is undoubtedly another barrier to quantifying the real impact osteoporosis has on health status and quality of life, not to mention the economic burden its presence places on the nation.

The estimated fracture data presented were derived from the rough data obtained through health insurance companies, both private and official. These data were then projected to the general population statistics.

A clear lack of direct and good quality statistics on osteoporosis and osteoporosis associated fractures is evident in Colombia.

Two population based studies are worth mentioning, as they have helped in understanding certain osteoporotic fracture prevalence in Colombia. Firstly, the LAVOS (Latin American Vertebral Osteoporosis Study) study revealed similar prevalence rates for morphometrically defined vertebral fractures in Colombia to those found in other countries of the region.

Secondly, the work done by ACOMM’s ex-president, Dr J.J. Jaller, was a prospective follow up of hip fractures done in the city of Barranquilla. These data were extrapolated to the country’s population by the WHO-FRAX working group to make it possible to incorporate Colombia’s data into the FRAX tool.

The update of the local consensus on osteoporosis is one of the priorities of the present Board of Directors at the ACOMM. The development of the ICUROS study will greatly enhance the body of knowledge surrounding the effect of osteoporotic fractures on quality of life in Colombia, as well helping to understand the economic consequences of these fractures for the country as a whole.

KEY FINDINGS

Population growth statistics

The present population of Colombia is estimated to be 45 million, of which 19% (8.5 million) is 50 years of age and older and 3.9% (1.7 million) is 70 years and older. By 2050, it is estimated that the total population will rise to 56 million, of which 39% (22 million) will be 50 years of age and older and 14% (7.8 million) will be 70 years and older (fig 1).
Epidemiology

In Colombia, it is estimated that currently 2,609,858 and 1,423,559 women 50 years and over are living with osteopenia and osteoporosis respectively. It is projected that these numbers will grow to 2,884,150 for osteopenia and 1,573,173 for osteoporosis by the year 2020. By the year 2050, these numbers could increase to 3,852,200 and 2,101,000 Colombian women with osteopenia and osteoporosis respectively.

A study conducted by Colombia’s National Institute of Health demonstrated a dramatic increase in osteoporosis in Colombian women in their fifth and sixth decades of life coupled with a higher prevalence when compared to other international statistics using the same age group. In 1999, researchers found a prevalence rate of 49.7% and 47.5% for osteopenia at the spine and proximal femur respectively in women 50 years and older in Bogotá, Colombia. This same group of women showed a prevalence rate of osteoporosis of 15.7% at the spine and 11.4% at the site of the proximal femur.

Hip fracture

It is estimated that in Colombia, 8,000 to 10,000 hip fractures occur in women annually, and that approximately 90% of these hip fractures are treated surgically. Projections foresee the number of hip fractures in women increasing to 11,500 annually by 2020.

A community-based hospital study, conducted in 1999, showed a hip fracture incidence rate of 234.9:100,000 and 116.5:100,000 women and men respectively. The study participants were aged 50 years and older.

The direct hospital cost for treating a hip fracture is estimated at 6,457 USD. The average hospital bed stay for a hip fracture patient is 10 days. There are no data available which might help demonstrate loss of productivity in the workplace and effects on quality of life post hip fracture.

Vertebral fracture, other fragility fractures

Data provided by the ACOMM estimates the number of annual vertebral fractures in women in Colombia at 284,711. Approximately one per cent of these fractures are treated surgically. In 2009, The LAVOS study revealed an overall prevalence of vertebral fractures in women aged 50 - 79 years of 10.7%. Note that, compared to the other Latin American countries studied, Colombia had the highest prevalence rate for its 70 - 79 year olds. Results here indicated that 22% of the study participants in this age range showed radiological evidence of vertebral fracture.

It is estimated that 854,135 osteoporotic fractures at other sites occur each year in Colombia, in women 50 years and over.

Diagnosis

There are 122 DXA machines in Colombia allowing for one DXA machine per 370,000 inhabitants. The average length of wait for a DXA scan is two to ten days, and DXA machines are only available in urban centers. There are currently no data available for ultrasound devices.

Reimbursement policy

The cost of a DXA scan is 30 USD. DXA tests are reimbursed by the government health plan only if ordered by a specialist rather than a general practitioner. DXAs are generally approved by private health plans if ordered by a specialist and the patient is older than 50 years of age. Some exceptions are made if well justified. Follow up DXAs are generally approved after one to three years, varying among different health insurance plans. Certain bisphosphonates are covered by the government health plan, but alternative osteoporosis medication use must be justified by the treating physician before an approval by a scientific committee will allow for reimbursement.

Calcium and vitamin D

Calcium, Vitamin D supplements, and fortified foods are available in Colombia.

Prevention, Education, Level of Awareness

Osteoporosis is not recognized as a major health problem and there are currently no governmental public awareness programmes covering prevention, diagnosis or management of osteoporosis. Physician guidelines do not exist. There is no governmental health professional training and there are currently no approved governmental guidelines for osteoporosis treatment or prevention.
Patient support groups do exist in Colombia. ACOMM supports public health awareness programmes via their website as well as hosting lectures and workshops for patients mainly surrounding the events of World Osteoporosis Day.

Lifestyle prevention programmes for osteoporosis are currently in development. Level of awareness among citizens of Colombia is considered to be average. ACOMM works with various corporate partners within the pharmaceutical industry. The level of awareness among healthcare professionals varies with specialty and geographic location. With the exception of rheumatologists, endocrinologists, and an increasing number of gynecologists dedicated to the care of postmenopausal women, as well as a minority group within the orthopaedic field, physicians are poorly equipped to diagnose and treat patients presenting with osteoporosis. Allied health professionals also lack training in care of osteoporotic patients.

**RECOMMENDATIONS**

- Continued development of both basic and advanced medical education programmes for health professionals.

- Public education and awareness campaigns about osteoporosis and fracture prevention are needed. ACOMM has developed a public campaign based on “Ask your doctor: do I have osteoporosis?”.

- Publication and implementation of government approved guidelines.

- Encourage research and epidemiological studies to provide reliable statistics on fracture prevalence.

- Improve accessibility to diagnosis and treatment, especially for the rural population.

- Developing sustained awareness actions within the medical and general communities.

- Working progressively to acquire better statistics on the frequency and costs (economic and quality of life), as planned through the ICUROS Study, will in the future help in lobbying actions to give priority to this silent disease in Colombia.

**REFERENCES**


2. U.S. Census Bureau, International Data Base 2011


