

EGYPT

OVERVIEW

The Egyptian Osteoporosis Prevention Society (EOPS) was founded in 1999. The main objective of the society is to deliver awareness and prevention programmes for public and patients, by arranging sessions, educational support, and public events. As well physician education is carried out through annual meetings and workshops providing up-dates of diagnosis and treatment of osteoporosis and osteoarthritis.

In 2010 EOPS provided education programmes to junior physicians, including information on the latest and most useful facts on osteoporosis. The second course also covered:

- Osteoporosis In Children and Adolescents
- Bone Markers
- Bone Densitometry: The ideal detector for osteoporosis
- Glucocorticoid-Induced Osteoporosis

EOPS is currently involved in a large project – Prevalence of Osteoporosis Among the Egyptian Population - targeting a specific age group. As well, two other studies are in progress - Osteoporotic Hip Fractures, and Prevalence of Osteoarthritis and Osteoporosis in Rheumatoid Patients.

FIGURE 1 Population projection for Egypt until 2050



REF US Census Bureau

Furthermore, EOPS provides targeted suburban awareness programmes with recent sessions at Menia, and Luxor. As part of a three-year activity plan, these events will continue throughout Egypt’s five main government areas. The EOPS website, www.egyptianops.org, was re-launched two years ago, with regular updates planned.

KEY FINDINGS

The present population in Egypt is estimated to be 80 million, of this 15% (12 million) is 50 years of age or over and 2.5% (2 million) is 70 or over. By 2050, it is estimated that 29% (40 million) of the population will be 50 or over and 8.4% (11 million) will be 70 or over while the total population will increase to 138 million (fig 1).

EPIDEMIOLOGY

Osteoporosis is a very old disease, as it was already present in ancient Egyptians (2687-2191 BC)! Zaki et al examined 74 skeletons and performed a DXA scan on these ancient Egyptians.

TABLE 1 Osteoporosis and osteopenia prevalence in ancient Egyptians¹

	OSTEOPENIA (%)	OSTEOPOROSIS (%)
Males (n=43)	18.6	9.3
Females (n=31)	22.5	16.1

In modern Egypt, based on different studies, it has been calculated that 53.9% of postmenopausal women have osteopenia and 28.4% have osteoporosis²; in men, 26% have osteopenia and 21.9% have osteoporosis.

TABLE 2 Osteoporosis and osteopenia prevalence in modern Egypt

	OSTEOPENIA (%)	OSTEOPOROSIS (%)
Males aged 20-89	26	21.9
Postmenopausal women	53.9	28.4

Hip fracture

No available information.

Vertebral fracture

Rashed et al. conducted a study in 2010 among 18 000 postmenopausal Egyptian women, measuring BMD using DXA and assessing vertebral fracture prevalence in normal, osteopenic and osteoporotic women (table 3).

DIAGNOSIS

No available information.

REIMBURSEMENT POLICY

No available information.

TABLE 3 Prevalence of vertebral fracture in normal, osteopenic and osteoporotic postmenopausal Egyptian women

	NORMAL		OSTEOPENIC		OSTEOPOROTIC		ALL	
	NO	%	NO	%	NO	%	NO	%
1-3 fractures	90	8.3%	630	5.6%	1134	19.8%	1854	10.3%
>3 fractures	9	0.8%	45	0.4%	252	4.4%	206	1.7%
all fractures	99	9.09%	675	6.03%	1386	24.2%	2160	12%
total	1089		11,187		2772		15,048	



CALCIUM AND VITAMIN D

A 2009 study by El Badawy et al from the Faculty of Medicine at Zagazig University and the Department of Rheumatology, Cairo University, assessed vitamin D levels in 432 females of childbearing age (mean age 37.3 ± 13.9) in two villages in Sharkia Governorate³. The study identified the role of different risk factors associated with vitamin D such as exposure to sun light, various lifestyle habits such as style of clothes, socio-biological factors and dietary intake of vitamin D. In addition, the study estimated the association between vitamin D levels and certain minerals and hormones such as Ca, Ph, bone specific alkaline phosphatase and parathyroid hormone. The cut-off point for 25OHVit D insufficiency was to be less than 40nmol/L. The results showed that 80.6% of the women were vitamin D insufficient. This could be attributed to insufficient sunlight exposure and low dietary vitamin D intake.

PREVENTION, EDUCATION, LEVEL OF AWARENESS

Low levels of awareness about osteoporosis were confirmed by a 2008 study which interviewed 462 women aged 40 and over and 262 physicians, excluding orthopedists and radiologists⁴. The results showed that among women, the awareness about risk factors and preventative measures was very low, with about one-third having unsatisfactory levels of awareness. A significant association was found between levels of awareness and socio-demographic factors such as income, place of residence and type of occupation. About 47% of the healthcare providers were found to have unsatisfactory levels of awareness, mostly related to their knowledge about the types of the disease (primary or secondary), risk factors and diagnostic methods. None of the socio-demographic factors were found to be associated with their level of awareness.

Egyptian Guidelines for the Diagnosis and Management of Osteoporosis have been developed to optimize the use of the existing tools available for the early diagnosis of osteoporosis and to help general practitioners as well as specialists in screening persons with or without risk factors in order to avoid the occurrence of fractures, especially the first fracture. The Guidelines have not yet been approved by the Ministry of Health.

RECOMMENDATIONS

There is a need to implement public health measures to improve vitamin D status through wide spread vitamin D supplementation, modest skin sunshine exposure, and increase of vitamin D fortified foods. In addition, given the low levels of osteoporosis awareness among the public and health professionals, efforts must be made to improve recognition and knowledge of osteoporosis and its repercussions - fragility fractures.

REFERENCES

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