Importance of Osteoporosis to Orthopaedic Surgeons

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Multinational Survey of Osteoporotic Fracture Management

Survey of 3422 orthopaedic surgeons from 6 countries

- 90% do not routinely measure bone density following the first fracture

- 75% are lacking appropriate knowledge about osteoporosis

Dreinhöfer et al. Osteoporos Int 2005; 16:S44-S54
Orthopedic Surgeons
Unique Opportunity

• Orthopedic surgeons are often the first and may be the only physician seen by fracture patients

• The orthopedist can serve a pivotal role in optimizing treatment, not only of the fracture, but also of the underlying disease

1. Eastell et al. QJM 2001; 94:575-59
Osteoporotic Fractures

• Optimal care of fragility fracture patient is a Critical opportunity for Orthopedic Surgeons

• DXA before Joint Replacement particularly hip

• Poor result if bone is osteoporotic – word of mouth by patients can ruin your reputation
World Health Organization (WHO)

• Systemic skeletal disease of men and women characterized by:
  – Low bone mass
  – Micro-architectural bone tissue deterioration
  – Decreased bone strength
  – Increased fracture risk

Osteoporosis

- Osteoporosis is a silent disease – no signs or symptoms
- It is the commonest bone disease worldwide
- Usually the first sign is a fracture, (wrist, spine or hip)
- It occurs in 1 in 2 post menopausal women
- 1 in 4 men (IOF 2005)
- Can affect all age groups - Not just an old lady’s disease
- Preventable and treatable
Just Old Woman!
Osteoporotic Versus Normal Trabecular Bone

http://www.helenhayeshospital.org/rbcmain.html
Causes of Osteoporosis

- Osteoporosis is a complication of many medical and surgical specialties
- Either the disease itself
- Or medications used to treat these conditions
- Over 60 causes
Osteoporosis

Progressive Spinal Deformity in Osteoporosis

Age 55 years

Age 65 years

Age 75 years

Compression fractures of thoracic vertebrae lead to loss of height and progressive thoracic kyphosis (dowager’s hump). Lower ribs eventually rest on iliac crests, and downward pressure on viscera causes abdominal distention.
Osteoporosis

- One fragility fracture doubles the risk of a second fracture
- All patient’s with a low trauma fracture should have a DXA
- Fill in a Questionnaire to find cause/s
- Treatment for Osteoporosis

- Must Identify those at risk
- Prevent first fracture
- Prevent falls
Cancer V Osteoporosis

• At age 50, a woman’s lifetime risk of fracture exceeds combined risk of breast, ovarian and uterine cancer

• Lung cancer only cancer that supersedes Osteoporosis in death

• At age 50, a man’s lifetime risk of fracture exceeds risk of prostate cancer

• Double the amount of men die than women from Osteoporosis
Compression Fractures of Lumbar Vertebrae
Hip Fractures

- Second most common osteoporotic fracture
- Lifetime risk = 17% white women, 6% white men
Hip Fractures are Devastating

- 20% aged 60+ who fx hip will die within 6-12 months
- 50% aged 60+ who fx hip unable to wash, dress or walk across a room unaided
- Only 30% regain their independence
- Increased depression, chronic pain, disability
Atypical Femoral Fractures

- Long term use of Bisphosphonates >5 years
- Pain, in shaft of femur
- Thickening of lateral cortex
- Transverse fracture
- Beak on fragment
- Difficult to treat
- Stop Bisphosphonates