Review Article and Clinical Experience: Preventive and Therapeutic Strategies for Osteoporosis (A Highly Efficacious Risedronate-35 mg Once Weekly)

Abstrak:

Based on WHO Criteria-1997, osteoporosis (OST) can be diagnosed clinically when the BMD (by DEXA) of the spine, hip or mid-radius is over-2.5 standard deviation (SD) below that of the young adult. In clinical practice, the most frequent OSTS can be categorized into 3 types, Type I-OST (PMO: Post Menopause OST), Type II-OST (ARO: Age-Related OST), and Type III-OST (CIO: Corticosteroid-Induced OST). Diabetic osteopenia and osteoporosis become major issues in daily clinical experiences. Recent studies indicated that the probable causes of diabetic osteopenia can be suggested: 1 AGE-modified collagen affected osteoblastic cell differentiation and function; 2. could be responsible for osteopenia-osteoporosis (esp. in post-menopause) in patients with diabetes mellitus. One of the 3 Missions of International Osteoporosis Foundation is to motivate people to take action to prevent, diagnose, and treat Ost. The Treatment Update of OST can also be grouped into three interventions: 1 Healthy Life Style as mentioned in the Prevention, 2 Calcium Supplement 1-1.5 g/day, 3A Drugs (Estrogen, Bisphosphonates, Calcitonin, Growth Hormone, SERMs, Strontium Ranelate (SR), Vitamin D, Fluoride, PTH-PTHRP, and 3B Symptomatic (Lumbar Support etc). The 3rd Generation (Gen.) Bisphosphonates (BISPs) investigated in humans, numbered in increasing order of potency are: Neridronate, Aledronate, Olpadronate, Risedronate, Ibandronate, Zoledronate, Alendronate (ALE) and Risedronate (RIS) are available in Indonesia. The novel BISP, Risedronate (RIS) is 5-fold more potent than ALE. Most recent studies on PMO demonstrated that RIS of 35 mg, or 50 mg Once a Week (OaW) provided the same efficacy and safety as the daily 5 mg regimen; therefore, the lower dose, 35 mg OaW can be considered as optimal dose for PMOs or other osteoporotic patients who desire OaW regimen. In addition, RIS can be prescribed without dosage adjustment for patients with mild or moderate renal impairment (creatinine clearance more than 20 ml/minute). Conclusions: OST, such as PMO, ARO, CIO, and diabetic osteopenia are the most prevalent bone disorders affecting ageing adults in Indonesia. Motivation of people to take action of prevention and treatment of OST should be intensified and socialized. RIS, a novel 3rd Gen-BISP has been proven to be effective and safe to prevent and to treat OST in a dosage of 5 mg OD, even with the same efficacy and safety if such a drug to be given 35 mg once a week. Importantly, it can be given safely without dosage adjustment as long as creatinine clearance of patients is more than 20 ml/min.

Keyword:

osteoporosis, diabetic osteopenia, bisphosphonates, Risedronate

Daftar Pustaka:

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