ABSTRACT

World Congress on Osteoporosis, Osteoarthritis and Musculoskeletal Diseases (WCO-IOF-ESCEO 2021): Satellite Sponsored Symposium Abstracts

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SY1
RECOGNISING HYPOPHOSPHATASIA (HPP) IN ADULTS: A CASE-BASED DISCUSSION FROM DIAGNOSIS TO MANAGEMENT
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Hypophosphatasia (HPP) is a rare, inherited metabolic disease caused by tissue nonspecific alkaline phosphatase deficiency. HPP is clinically heterogeneous with manifestations that can occur at any age and, for adults, commonly include pain, recurrent and poorly healing fractures, and muscle weakness leading to a high disease burden.1 Symptom overlap with other, more common disorders contributes to the frequently experienced delay in diagnosis. A median ~10-year delay in diagnosis for adults was reported from the Global HPP Registry.1 Delays lead to increased healthcare utilisation; results from a self-reported UK-based study showed that patients with HPP require multiple different outpatient contacts and diagnostic tests before diagnosis2 (NCT02751801).3 Therefore, it is important to recognise key biochemical and clinical characteristics that differentiate patients with HPP from those with other disorders. In a prospective study in a UK metabolic bone clinic, thresholds of biochemical assessments such as alkaline phosphatase ≤43 IU/L and pyridoxal 5′-phosphate ≥ 120 nmol/L, along with key clinical features such as younger age and presence of metatarsal or femoral shaft fractures, were found to sufficiently differentiate patients with HPP from patients with low bone mineral density.4 After diagnosis, care is centred around managing symptoms and often requires a multidisciplinary approach.5 The enzyme replacement therapy asfotase alfa is licenced in the EU for patients with paediatric-onset HPP to treat the bone manifestations of the disease. This presentation is a case-based discussion of the diagnosis and management of these adults with HPP.

References:
1. Höglér W et al. BMC Musculoskelet Disord 2019;20:80
2. Jenkins-Jones S et al. J Bone Miner Res 2018;33(S1):oral 1107
3. NIH, US National Library of Medicine. Available from https://clinicaltrials.gov/ct2/show/NCT02751801. Accessed: May 2021
4. Desborough R et al. Bone 2021;144:115795
5. Bianchi ML et al. Osteoporos Int 2020;31:1445-1460

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SY2
CLINICAL GUIDELINES FOR THE MANAGEMENT OF OSTEOARTHRITIS: MULTIMODAL APPROACH
C. Cooper1
1MRC Lifecourse Epidemiology Unit, University of Southampton,Southampton General Hospital, Southampton, United Kingdom

Professor Cooper will provide an overview of the epidemiology of Osteoarthritis, highlighting its increasing importance in a global society where populations are generally ageing, and are often simultaneously challenged by an elevated Body Mass Index. The different approaches to disease management, as suggested in international disease area guidelines for Osteoarthritis will be briefly outlined, focusing on the need to utilise different non pharmacological and pharmacological options, sometimes concurrently, to achieve optimal outcomes for patients. The final part of the presentation will focus on a summary of the key synergistic strategies outlined in the 2019 update to the ESCEO treatment algorithm for the management of knee Osteoarthritis with a focus on the treatment options that the ESCEO working group identified as being particu- larly beneficial to manage osteoarthritis patients.

SY3
REHABILITATION FOR MANAGING OA: AN OPPORTUNITY FOR BEHAVIOR CHANGE
D. Pinto1
1PT, D.P.T., Ph.D., OCS, FAAOMPT. Physical Therapy, Marquette University, Milwaukee, United States

Dr Pinto is an expert in Physical Therapy and will provide guidance on the various rehabilitative practices that can be adopted to encourage better management of the heterogeneous overlapping group of disorders collectively known as Osteoarthritis. An important concept in these practices is
the principle of behaviour change, the techniques that can be employed in its facilitation, and the broader system level considerations that must be evaluated in order for behaviour change techniques successful integration into osteoarthritis management.

SY4
A PATIENT CENTRIC APPROACH TO OA MANAGEMENT: PROMOTING KNOWLEDGE TRANSFER AMONG PATIENTS.
M. De Wit1

1Patient Research Partner, VU Medical Center, Amsterdam, The Netherlands

Dr De Wit is a strong and active member of the EULAR community of People with Arthritis/Rheumatism in Europe (PARE). In presenting a view of osteoarthritis from a patients perspective, he will highlight that the condition is treatable, requiring patient centric multidisciplinary care, that also fully utilizes the patient in the mobilization of research evidence in order to turn it into common clinical practice. Dr De Wit will also focus on the importance of trust, social support and patient education as critical levers in promoting long term adherence to the different strategies that may be employed in the management of Osteoarthritis.

SY5
UCB SPONSORED SYMPOSIUM - THE BLUEPRINT: A PLAN FOR IMPROVED CLINICAL OUTCOMES IN POSTMENOPAUSAL WOMEN WITH SEVERE OSTEOPOROSIS

UCB1
1UCB, Brussels, Belgium

We invite you to join this interactive symposium, chaired by Professor Bente Langdahl (Aarhus University Hospital, Denmark), to discover how to identify and optimise care for postmenopausal women at high risk of fracture.

How do we identify those patients appropriate for earlier bone-forming therapy? Professor Eugene McCloskey (University of Sheffield, United Kingdom)

Postmenopausal women have an inherent risk of fragility fractures due to the marked decrease in oestrogen at menopause, which can lead to bone loss. In addition to the female sex and older age, many other interacting non-modifiable and lifestyle factors can place postmenopausal women at high or very high fracture risk. Of these risk factors, one of the most important to consider is a recent fragility fracture, which increases the risk level of a subsequent fracture to ‘imminent’ and necessitates early and effective therapeutic intervention.

To begin the symposium, Professor McCloskey will explore the factors that contribute to fragility fracture risk in postmenopausal women, focusing on how to identify patients who may derive the greatest clinical benefit from earlier bone-forming therapy – supported by the presentation of one of Professor McCloskey’s clinical cases.

Optimising clinical outcomes with bone-forming therapy: Why the sequence of treatment matters Professor Serge Ferrari (Geneva University Hospitals, Switzerland)

To achieve optimal and sustained BMD gains in patients with osteoporosis, it has been suggested that bone-forming therapy should be used as first-line treatment followed by antiresorptive therapy, rather than vice versa. Professor Ferrari will discuss the data supporting this recommendation and how the sequence of treatment, and initial choice of bone-forming agent, can be highly influential in determining patient outcomes.

Evaluating the benefits and risks of a dual-effect bone-forming therapy: Latest real-world clinical insights Professor David Reid (University of Aberdeen, United Kingdom)

Finally, Professor David Reid will share his early experience of using romosozumab in clinical practice. He will provide his real-world insights on how this dual-effect, bone-forming therapy fits into the current treatment algorithm, including the patient profile, observed outcomes of therapy and assessment of cardiovascular risk. Professor Reid will also discuss the adverse events observed in his clinical practice and how these are currently being monitored more widely to inform the benefit-risk profile.

This symposium is sponsored by UCB.

References:
1. Gallagher JC, and Tella SH. J Steroid Biochem Mol Biol. 2014;142:155–70.
2. Kanis JA, et al. Osteoporos Int. 2019;30:3–44.
3. Kanis JA, et al. Osteoporos Int. 2020;31:1–12.
4. Siris ES, et al. Osteoporos Int. 2014;25:1439–43.
5. Balasubramanian A, et al. Osteoporos Int. 2019;30:79–92.
6. Cosman F, et al. J Bone Miner Res. 2017;32:198–202.

SY6
BONE HEALTH AND FRACTURE PREVENTION IN THE DECADE OF HEALTHY AGEING.
C. Cooper1

1MRC Lifecourse Epidemiology Unit, University of Southampton, Southampt General Hospital, Southampton, United Kingdom

Professor Cyrus Cooper’s presentation will focus on ways to reduce the health and societal burden of poor bone health, which results in poor quality of life (QOL) and high rates of hospitalisation. Given that old age is a significant risk factor for osteoporosis, Professor Cooper will also introduce the ‘decade of healthy ageing’ initiative developed by the United Nations, which aims to align health systems to the needs of older people and lay the foundations for long-term care in every country.

Professor Cooper will also discuss the importance of integrated care pathways for increasing awareness of poor bone health and preventing the occurrence of fractures in patients with osteoporosis. Such pathways are designed to integrate stakeholder action with optimal primary and secondary care, which can help to increase understanding and preparedness among healthcare providers, resulting in improved QOL and reduced healthcare costs. During his presentation, Professor Cooper will also discuss the Capture the fracture® initiative, which is a stepwise approach to policy building with the ultimate goal of improving patient outcomes, reducing healthcare costs and saving patients’ lives.

SY7
LONG-TERM TREATMENT STRATEGIES FOR OSTEOPOROSIS

A. Diez-Perez1
1Hospital del Mar, Barcelona, Spain

In the final presentation, Professor Adolfo Diez-Perez will address the challenges in the sequential treatment of osteoporosis and explore options for treat-to-target, and goal directed therapy. He will focus on the latest developments in international osteoporosis guidelines and discuss the recommended treatments for patients as defined by their individual level of risk e.g., initial treatment with an anabolic agent followed by an anti resorptive in patients at very high risk of fracture. During his presentation, Professor Diez-Perez will offer his perspectives on published studies of sequential treatment in osteoporosis and provide practical advice on optimal treatment strategies depending on individual patient profiles.
Professor Diez-Perez will also discuss the importance of continuity of care during the COVID-19 pandemic.

SY8
THE ROLE FOR PROCEDURAL TREATMENTS TO ADDRESS BONE LOSS IN PATIENTS AT HIGH RISK OF HIP FRACTURE
S. Ferrari1, M. L. Brandi2, J. De Schepper3, A. Kurth4
1University of Geneva, Geneva, Switzerland, 2University of Florence, Florence, Italy, 3A.Z. Nikolaas, Sint-Niklaas, Belgium, 4Middle Rhein Community Hospital, Koblenz, Germany

This symposium is guided by a multi-disciplinary group of expert clinician researchers who are interested in the question of how procedural treatments can enhance bone strength to help prevent fragility fractures in high-risk patients.

While the available portfolio of proven pharmacological therapies to address osteoporosis-related bone loss and fragility fracture risk has grown over the past decades, unmet needs clearly remain. Unmet needs are especially prominent for patients at imminent and very high risk of hip fragility fracture1. The stubbornness of this problem has led to the development, study and introduction of procedural treatments2 as a novel means to address the loss of bone mass, quality and strength that characterize osteoporosis and are a precursor for fragility fractures. Current treatment guidance suggests consideration of one type of procedural treatment for patients at very high risk of fracture3. To help clinicians understand how this procedural treatment may help clinicians to improve care, the panel of experts will lecture on both the structural determinants of bone fragility, focusing on novel imaging techniques that allow to better evaluate the longitudinal changes in bone volume and strength in the aging skeleton, as well as on the overall approach of procedural treatments and pre-clinical evidence and clinical experience with one treatment (i.e., LOEP), including:

- How bone volume and microarchitecture informs our understanding of bone fragility
- Avoidance of bone loss versus expansion of bone volume as a treatment goal
- Multi-model, pre-clinical evidence of bone formation
- The clinical experience with a local osteo-enhancement procedure (LOEP)
- The present and future for procedural treatments

This symposium is sponsored by AgNovos Healthcare.

Reference:
1. Ferrari et al., Archives of Osteoporosis 2016 11:37; 2. Howe et al. Osteoporos Int 31, 921–929 (2020); 3. Kanis et al., Osteoporos Int 31, 209 (2020)