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**JSS College of Pharmacy, Ooty**  
(An ISO 901:2015 Certified Institution)  
**Department of Pharmacy Practice**



**A Brief Report on Web Lecture Series-2 held on 30.06.2020**

**Topic: Role of biologics in the management of Rheumatoid Arthritis / Osteoporosis**

**Time: 02:00 PM – 02:45 PM**

**Platform: Google Meet (Link: <https://meet.google.com/htu-wzmo-dbk?hs=122&authuser=0>)**

**Speaker: Dr Debra Rowett**  
**Professor, School of Pharmacy**  
**University of South Australia, Adelaide**  
**Australia**



To accomplish the notion 'Learning Never Stops at JSS', adopted by JSS Academy of Higher Education & Research, Mysuru, it was decided to organize 'Web Lectures' to our students by adjunct faculties and other renowned faculty members on specialized areas to advance the knowledge and practice. To initiate this task, the second web lecture for the academic year 2020-21 was organized by the Department of Pharmacy Practice on 30.06.2020 (Time: 2 – 2:45 PM) as per the details mentioned above.

Dr. Debra Rowett, Professor, School of Pharmacy, University of South Australia, Adelaide, South Australia, an expert in the area of utilization of biologics in the management of various diseases in elderly population has delivered a lecture on role of biologics in the management of rheumatoid arthritis / osteoporosis. The excerpt from his lecture is given here.

Aging is the result of different functional changes leading to a substantial reduction of all human capabilities. A variety of anatomical and physiological changes occur with advancing age. These changes are more evident in the elderly population. There are various methods to measure muscle and bone mass loss, but the dual X-ray absorptiometry (DXA) is considered one of the most efficient. The elderly population (65 years and older) has been increasing throughout the years. Loss of muscle mass (sarcopenia) and loss bone mass (osteopenia or osteoporosis) with advancing age, when untreated, represent a major public health problem for the elderly population and may result in loss of independence in later life. Untreated age-related sarcopenia and osteopenia/osteoporosis increase the risk for falls and fractures, making older individuals more susceptible to the development of mobility limitations or severe disabilities that ultimately affect their capacity for independence.

The incidence of fragility fractures has increased during the last half of the 1990's. One important determinant of fractures is the bone mineral content (BMC) or bone mineral density (BMD), the amount of mineralised bone. If we could increase peak bone mass (the highest value of BMC reached during life) and/or decrease the age-related bone loss, we could possibly improve the skeletal resistance to fracture. Exercise during growth increases peak bone mass. Moderate intensity exercise intervention programs are beneficial for the skeletal development during growth. Adequate nutrition must accompany the exercise to achieve the most beneficial skeletal effects by exercise.

Antiestrogenic agents - Used to prevent worsening of osteoporosis and occasionally can reverse the process. Calcitonin (Miacalcin, Osteocalcin) administered most often intranasally. Advantage is that it also can relieve some of the back pain associated with fracture. Further, she also discussed about the Therapeutic Good Administration (TGA) approved biologics; bisphosphonates, mono-clonal antibodies, Denosumab, calcium supplementation, vitamin D in the management of osteoporosis with specific examples.

Couple of questions raised by the participants about, the management of corticosteroids induced osteoporosis, fracture risk calculator, age vs risk of fracture and calcium supplementation etc., was all addressed by the speaker.

Earlier, Dr S P Dhanabal, Principal welcomed the speaker and all the participants to the web lecture of this academic year. Dr S Ponnusankar, Professor & Head, Department of Pharmacy Practice proposed the vote of thanks.

About 102 participants comprising the fifth and sixth PharmD students, faculty members and research scholars have participated in the lecture.



