

RCR Articles in the Spotlight for May 2013

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Welcome to the May 2013 issue of Rheumatology: Current Research. This issue of RCR covers a number of comprehensive reviews focused on bone, joints, autoimmune, and rheumatic diseases.

In “Metabolic Bone Disease and Bariatric Surgery”, Tanjinder et al. discuss the metabolic complications of bariatric surgery [1]. Long-term complications after the bariatric surgery might not manifest until years or decades later leading to impaired absorption of calcium and osteomalacia [2]. The aim of this article is to increase awareness of metabolic bone disease following bariatric surgery that will lead to the adequate post-operative management of the patients that undertook bariatric procedures.

In “Atherosclerosis in Patients with Rheumatoid Arthritis”, Wu et al. review the association of rheumatoid arthritis with cardiovascular risk factors, discuss possible mechanism of atherosclerosis, and evaluate the potential strategies to prevent premature atherosclerosis in rheumatoid arthritis patients [3]. The authors cite numerous studies proving that rheumatoid arthritis accelerates atherosclerosis, and that excess mortality in patients with rheumatoid arthritis is largely attributed to cardiovascular disease-related death [4-6]. Although the pathogenesis of premature atherosclerosis is likely multifactorial and not entirely clear, an inflammation in rheumatoid arthritis is now considered as an independent risk factor for the development of atherosclerosis. Importantly, therapies that control the activity of rheumatoid arthritis are beneficial for the prevention of atherosclerosis.

“Rheumatic Heart Disease: Genes, Inflammation and Autoimmunity” by Guilherme et al. provides comprehensive review of possible consequences following *Streptococcus pyogenes* infection. The authors discuss the genetic factors, bacterial and human protein cross reactions, autoimmune and inflammatory processes that lead to the heart tissue lesions in patients with rheumatic heart disease [7].

The review “Building Rational Models of Humoral Autoimmunity: The example of Lupus Tubulointerstitial Nephritis” by Andrew Kinloch discusses the animal models of humoral autoimmunity focusing on the modeling recently discovered organ-specific autoimmune phenomenon lupus tubulointerstitial nephritis [8].

In “Mechanisms by which Elevated Resistin Levels Accelerate Atherosclerotic Cardiovascular Disease”, Shiryia Rashid [9] deliberates links between the obesity and atherosclerotic cardiovascular diseases. The article focuses on the recently discovered adipokine, resistin, and the role of resistin as an emerging risk factor for atherosclerotic cardiovascular diseases including coronary heart disease [9]. The author discusses a novel role of human resistin in stimulating hepatic dysregulation of low-density and very-low-density lipoprotein metabolism and examines potentials of resistin as a risk factor and possible therapeutic target in mitigating atherosclerotic cardiovascular diseases in overweight and obese individuals.

“Role of X Chromosome Encoded miRNAs in Autoimmunity” by Anura Hewagama provides updates about epigenetic and miRNA mediated regulation of proteins associated with autoimmune diseases [10,11]. The review and commentary suggest that overexpression of

miRNA encoded by female X chromosome can lead to the inhibition of several ubiquitin ligases and suppressors of cytokine signaling proteins. miRNA mediated down regulation of these proteins contribute to a persistently active T cell phenotype and cytokine imbalance associated with autoimmune diseases.

In summary, I would like to thank all authors who contributed to this issue of our Journal. I sincerely hope that both, clinicians and researchers will enjoy reading these reports as much as I have.

Acknowledgement

This work is supported in part by the grant from NIH P60 AR062755.

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Received May 17, 2013; Accepted May 18, 2013; Published May 27, 2013

Citation: Bogatkevich GS (2013) RCR Articles in the Spotlight for May 2013. *Rheumatol Curr Res* 3: 117. doi:10.4172/2161-1149.1000117

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