Letter to the Editor

Osteopontin: A Major Player in the Pathogenesis of Endocrine and Systemic Diseases

To the Editor;

The recent article by Taguchi *et al.* about the role of osteopontin in pathogenesis of Erdheim-Chester Disease is highly interesting [1]. Osteopontin is rapidly emerging as a major player in both physiological and pathological processes through out the body as is evident from data that has emerged from studies conducted over the past few years.

For instance, Xu *et al.* in a recent study have reported that mutations in the osteopontin gene may result in the development of systemic lupus erythematosus [2]. Similarly, there has been a plethora of recent research that has linked osteopontin to the etio-pathogenesis of multiple different systemic malignancies especially breast cancer. For instance, osteopontin-c is an exclusive biomarker of breast malignancies [3]. Similarly, it has been shown that glomerular epithelial cells that express osteopontin are more likely to undergo progression to lesions such as focal segmental glomerulosclerosis. Osteopontin also plays a major role in bone

physiology and pathology. For instance, Franzen *et al.* in a recent study have shown that osteopontin deficiency is associated with altered osteoclastic activity resulting in decreased bone resorption and osteoporosis [4]. Osteopontin also has a major role to play in the development of neurological diseases. For instance, it has been shown that osteopontin may play a major pathological role in relapses in patients with multiple sclerosis. Similarly, osteopontin levels are significant markers of the presence and progression of abdominal aortic aneurysms [5].

These studies clearly indicate that osteopontin has a major role to play in the evolution and progression of multiple systemic diseases. Ongoing research will hopefully identify further such clinical associations and help us in having a better understanding of the pathological effects of osteopontin.

References

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Received: March 5, 2008

Accepted: March 9, 2008

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Key words: Osteopontin, Systemic lupus erythematosus, Breast cancer, Focal segmental glomerulosclerosis, Osteoporosis