**ASSOCIATION BETWEEN SERUM OSTEOPONTIN LEVELS AND CALCIFIC AORTIC STENOSIS: A META-ANALYSIS**

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*Background*: Osteopontin (OP) is a multifunctional glycophosphoprotein known to regulate bone remodeling via stimulation and differentiation of osteoclast cells. OP is involved in cell mediated inflammation and biomineralization of ectopic and dystrophic sites. The association between OP and calcific aortic stenosis (CAS) remains unclear. We conducted a meta- analysis to evaluate the relationship between serum OP levels and CAS. *Methods*: We searched MEDLINE, CINAHL and COCHRANE databases for studies reporting serum OP levels in the patients with CAS and healthy controls. We calculated the weighted standardized mean difference (SMD) in serum OP levels between the CAS and control groups.

*Results*: Our search strategy yielded 41 articles and we included 4 studies enrolling 294 participants. The median age of the CAS group was 76 yrs. (IQR 76-77) vs 63 yrs. (IQR 61-65) in the control group. The median female percentage and serum calcium level in the CAS group were 48% (IQR 44-53) and 9.2 mg/dl (IQR 9.2-9.25) vs 46% (IQR 39- 49) and 9.3 mg/dl (IQR 9.25-9.30) in the control group. The unweighted median serum OP levels in the CAS group were 64.34 ng/ml (IQR 63.42 - 211.34) compared to 30.31 ng/ml (IQR 29.08 - 117.67) in the control group. The SMD of serum OP level was 4.25 (95% CI 0.81-7.78) P=0.01 comparing those in the CAS group and control group.

*Conclusion*: An elevated serum OP level is significantly associated with the presence of CAS. OP may potentially be used as a novel biomarker of CAS in asymptomatic patients.