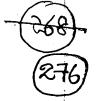


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Risk factors for muscular symptoms associated with atorvastatin therapy: evidence from an observational study in a group of Sri Lankan patients

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### **OBJECTIVES**

Occurrence of muscular symptoms with statin therapy is well-recognized. It could adversely affect quality of life and exercise tolerance. Objective of this study was to describe the risk factors for muscular symptoms associated with atorvastatin therapy in a group of Sri Lankan patients.

#### **METHOD**

Consecutive patients receiving atorvastatin at outpatient clinics of a tertiary-care hospital who were screened for a clinical trial on management of statin myopathy, were studied. Those with muscle symptoms (pain, tenderness, stiffness, cramps, weakness) started after initiation of atorvastatin were included. Potential risk factors were detected with clinical assessment and/or investigations. Details were recorded using an interviewer administered questionnaire. Data were analysed with SPSS version-19.0

## **RESULTS**

456 patients were studied; 64.7% were females; mean age was 63.4±10years. 57.5%, 16.7% and 15.4% had diabetes, hypothyroidism and chronic kidney disease (CKD), respectively. 46.5% and 45.8% were on 10mg and 20mg of atorvastatin, respectively. Majority (56%) were on atorvastatin for ≥48 months. 29.4% had at least one muscle symptom; 2.9% had elevated creatine phosphokinase. Results of multiple logistic regression indicated that female gender (OR:1.7; 95% CI: 1.1-2.9; p=0.03), diabetes (OR:3.0; 95% CI: 1.3-6.7; p=0.008) and treatment duration of ≥48months (OR:2.2; 95% CI: 1.1-4.8; p=0.04) were independent risk factors for muscular symptoms associated with atorvastatin therapy. Age, atorvastatin dose, co-medications, history of hypothyroidism and CKD were not found to be significant risk factors.

#### CONCLUSION

In the study population, one third had muscular symptoms associated with atorvastatin therapy; female gender, diabetes and treatment for ≥48months were independent risk factors.