

Subclinical Rhabdomyolysis in Mesoamerican Nephropathy

Methods



109
sugarcane
workers



Veracruz
Mexico

Intervention



Serum myoglobin,
creatine kinase (CK)
and creatinine



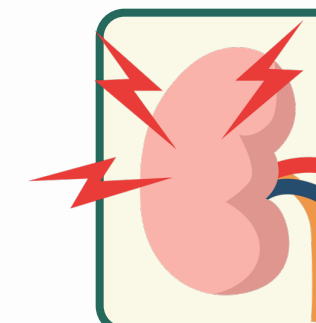
Pre and post
8 to 12-hour shift
harvesting sugarcane

Results



Myoglobin (ng/mL)
Pre-shift: 33.2 ± 1.42
Post-shift: 60.0 ± 5.02

$p < 0.001$



Creatinine
Significant increment in
post-shift levels



Subclinical
rhamdomyolysis
Murine model



4 rats
50% glycerol (GLY)
for 1 month

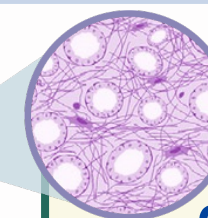


4 rats
0.9% saline (Control)
for 1 month



4-week
follow-up

Euthanasia for
renal pathology
examination



Mild increments in CK &
creatinine → normal in 4 weeks.
Persistent tubulointerstitial injury

Conclusion: Single working shifts in sugar cane harvesters are associated with subclinical rhabdomyolysis. Subclinical rhabdomyolysis should be studied as a possible cause of Mesoamerican nephropathy.

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