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## **Stable Ischemic Heart Disease**

## ATHEROSCLEROSIS IN ANCIENT AND MODERN EGYPTIANS: THE HORUS STUDY

Poster Contributions Hall C

Sunday, March 30, 2014, 3:45 p.m.-4:30 p.m.

Session Title: Interventional Imaging Modalities and Treatments for Atherosclerotic Heart Disease

Abstract Category: 25. Stable Ischemic Heart Disease: Clinical

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Authors: <u>Adel Allam</u>, Randall Thompson, L. Samuel Wann, M. Linda Sutherland, James Sutherland, Bruno Frohlich, Michael Miyamoto, Sallam L. Sallam, MA Mandour Ali, Caleb Finch, Gregory Thomas, Al Azhar Medical School, Cairo, Egypt, St. Luke's Mid America Heart Institute, Kansas City, MO, USA

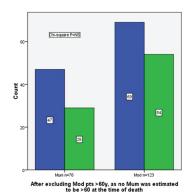
**Background:** Although atherosclerosis (Ath) is commonly believed to be a modern disease, CT evidence of Ath is common among Egyptian mummies (Mum). We sought to compare the prevalence of Ath in ancient & modern Egyptians (Mod).

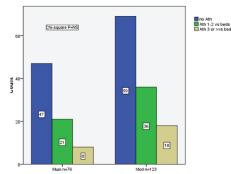
**Methods:** We compared the presence & extent of vascular calcifications (Ca) from whole body CT scans of 178 consecutive Mod undergoing recent PET/CT for cancer staging in Cairo to CT scans of 76 Mum (3100 BCE-364 CE).

**Results:** Mean age of Mod was 52.3 [ $\pm$ SD 15] y (range 14-84 y) vs estimated age at death of Mum 36.5[13] y (range 4-60 y); p<0.0001. Males were 104/178 (58.4%) of Mod & 48/74 (59.3%) of Mum, p=NS. Ca was detected in 108/178 of Mod pts (60.7%) vs 26/76 (38.2%) of Mum, p<0.001. The mean age for Mod was 61 [SD 10.5] y for those with Ath vs 39 [10.1] y for those without (p<0.0001). Number of arterial beds involved: Mean age 39 [SD 10.1] y for Mod with no Ath, 56 [9.5] y for those with Ath in 1 or 2 beds & 65.7 [9.2] y with Ath in  $\geq$  3 beds; p<0.0001. Mean age of Mum at time of death was 42.7 [SD 10.2] y with Ath vs 32.7 [12.4] y for those without (p<0.0001). Number of arterial beds involved: Mean age was 32.7 [SD 12.4] y for Mum with no Ath, 41.4 [10.9] y for those with Ath in 1 or 2 beds & 45.9 [7.9] y for those with Ath in  $\geq$  3 beds. When Mod pts > 60y were excluded, Ath prevalence & severity were comparable in Mod & Mum (Figure).

**Conclusion:** While many ancient Egyptians died at a young age from childbirth, infection and trauma, those who survived to adulthood had an increasing prevalence of Ath with aging, similar to modern Egyptians.

-ve Ath





After exluding Mod pts>60y, as no Mum was estimated to be>60y at time of death