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Figure 4. Effects of high fat (HF) diet induced obesity on mesenteric artery function in response to insulin and IGF-1 compared to lean low fat (LF) diet fed mice. (A) Data shows a representative recording of dose-dependent insulin-induced vasorelaxation followed by a time-matched control showing stability of pre-constriction over time. Data shows insulin (B) and IGF-1 (C) induced relaxation in pre-constricted mesenteric arteries (1st order) taken from LF and HF mice after 16-weeks feeding. Differences in vascular sensitivity to insulin and IGF-1 in LF (D) and HF (E) mice are shown and maximal relaxation achieved with insulin (F) and IGF-1 (G). Insulin (H) and IGF-1 (I) mediated phosphorylation of Akt in LF and HF mesenteric arteries is shown with maximal phosphorylation shown in (J) and (K). All data are given as mean values ± SEM. *P<0.05, HF vs LF group, (n=3-7 for each group).