



Figure S3.

The concomitant administration of dexamethasone and adrenaline after cryoinjury mimics the effect of stress on heart regeneration.

(A, B) Representative images of cryoinjured hearts at 30 dpci labeled with phalloidin (red, F-actin), dapi (blue) and antibody against L-Plastin (green, leukocytes). (A', B') Higher magnification of the frame areas shown in (A, B). (C) Quantification of L-Plastin-positive area normalized to the total area of the ventricles revealed no significant effect of daily acute dexamethasone (2 mg/l) treatment on cardiac inflammation. $N > 4$. (D-M) Sections of hearts at 30 days post cryoinjury (dpci) after AFOG staining. (F-M) The acute administration (1 hour per day) of dexamethasone (Dex, 2 mg/l) alone (H-J) or concomitantly with adrenaline (adr, 1 mg/l) (K-M) resulted in cardiac regenerative impairment in 50% and 62.5% of the fish, respectively. In contrast, animals treated with adrenaline alone during 1 hour per day displayed similar regenerative scores as the control (D-G). (N-P) Heart sections of *cmlc2::DsRed2-Nuc* transgenic zebrafish at 7 dpci immunostained against MCM5 (green). (N'-P') Higher magnifications of the framed areas shown in (N-P). Proliferating CMs could be identified in all groups by the overlap between MCM5 and DsRed (arrowheads). In contrast to adrenaline (1 mg/l, 1h /day), the treatment with glucocorticoid (hydrocortisone, 1 mg/l) lead to a reduction in CM proliferation at 7 dpci. Cryoinjured parts are encircled with a dashed line. Scale bar (A, D, N) = 100 μ m.