**OXYTOCIN: AN ANTIOBESITY AND CARDIOPROTECTIVE MOLECULE**

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We have provided first evidence on the action of hormone oxytocin on adipose tissue (1). Treatment with oxytocin resulted in a reduction of adipocyte size and an increase in protein content. In contrast to clinically used drugs increasing insulin sensitivity, oxytocin failed to influence adiposity. Positive adipogenic and angiogenic effects of oxytocin may be mediated by activation of eucaryotic elongation factor 2 (1). Moreover, prolonged treatment with oxytocin led to activation of p38-MAPK and PI3K/Akt kinase in the heart, reduction of the infarct size and improved postischemic recovery of heart function. We suggest that positive effects of oxytocin on the heart may be mediated through p38-MAPK and Akt kinase pathways (2). Oxytocin is released during stress and we have discovered that stress exposure induces a reduction in cell proliferation in the heart. Interestingly, treatment with neuroprotective drug memantine potentiated rather than prevented stress-induced reduction of cell proliferation.

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