

LETTERS TO THE EDITOR

From these observations, it appears that guanethidine, in addition to its catecholamine-depleting activity, does possess some direct sympathomimetic action. However, the β -receptor mediated responses of heart rate and myocardial force of contraction appear to be dissociated from the peripheral vascular effects of this agent.

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May 22, 1963

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Cardiotonic Activity Amongst Polyene Antifungal Antibiotics

SIR,—The cardiotonic activity of hamycin and trichomycin, two polyene antifungal antibiotics, has been already reported (Arora, 1962, Arora and Sinha, 1963, Ozaki, Kataoka, Maesawa, Tshima and Kubo, 1954). Nystatin and lagosin, two more polyene antifungal antibiotics, revealed the presence of a similar activity.

Ten experiments were made with nystatin and lagosin on the perfused frog heart in which failure was induced by raising the venous pressure in steps of 1 cm. (Burn, 1952). Cardiac outflow was simultaneously recorded through a cannula in the aorta. Nystatin was perfused in a concentration of 2×10^{-5} g./ml. and lagosin in a concentration of 6×10^{-5} g./ml. With either drug, perfusion was followed by a marked increase in the amplitude of contraction as well as an increase in the cardiac outflow. This was followed by an increase in the diastolic tone and a decrease in the cardiac outflow, terminating in systolic arrest of the ventricles in 20 to 30 min. Effects were comparable with a concentration of 2×10^{-5} g./ml. of ouabain although the systolic contracture was not as complete as with nystatin or lagosin. Control experiments with propylene glycol for nystatin and ethanol for lagosin failed to produce the effects seen with these drugs.

Nystatin was kindly supplied by M/S. Squibb Institute for Medical Research, New Jersey, U.S.A., and lagosin, by Dr. V. Thaller, Oxford University.

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May 28, 1963

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