Table 1 Amylase release by *A. means* pancreas organ cultures

Treatment	Total α-amylase released (mu/mg tissue, mean ± s.e. mean, n = 4) 0–24 h		0–48 h		0–72 h	
Untreated controls	30 ± 2		70 ± 6		109 ± 2	
atropine (10^{-5}M)	35 ± 2		66 ± 5		81 ± 7	
timolol (10^{-4}M)	33 ± 2		64 ± 6		93 ± 14	
methacholine (10^{-5}M)	97 ± 10	($P < 0.001$)[a]	199 ± 20	($P < 0.001$)[a]	276 ± 22	($P < 0.001$)[a]
methacholine + atropine	20 ± 3	($P < 0.002$)[b]	50 ± 4	($P < 0.001$)[b]	82 ± 7	($P < 0.001$)[b]
methacholine + timolol	70 ± 5		145 ± 10		221 ± 16	
isoprenaline (10^{-5}M)	52 ± 4	($P < 0.002$)[a]	106 ± 4	($P < 0.002$)[a]	142 ± 5	($P < 0.01$)[a]
isoprenaline + atropine	30 ± 4	($P < 0.01$)[b]	68 ± 9	($P < 0.01$)[b]	83 ± 10	($P < 0.01$)[b]
isoprenaline + timolol	52 ± 5		106 ± 13		137 ± 14	

[a] Significantly different from control value.
[b] Significantly different from value with agonist alone.
Drugs were added at 0, 24 and 48 h.

acinar cells. The mechanism involved does not appear to have involved β-adrenoceptors and may not be of physiological significance.

CHH is a Medical Research Council postgraduate research student. The timolol maleate was a gift from Merck, Sharp & Dohme Research Laboratories.

References

GATER, S. & BALLS, M. (1977). Amphibian pancreas function in long-term organ culture: control of amylase release. *Gen. Comp. Endocrinol.*, **33**, 82–93.

PEDERSON, R. & SCHULZ, I. (1974). The effect of isoproterenol on enzyme secretion from the isolated perfused cat pancreas. *Biochim. Biophys. Acta*, **338**, 440–446.

Carotid artery loop puncture; a convenient technique for direct blood pressure measurement in the conscious dog

R. PARKINSON
(introduced by M.F. SIM)

Research Department, The Boots Co. Ltd., Nottingham NG2 3AA

Direct needle puncture of the carotid artery loop preparation provides a convenient access to the arterial circulation for blood pressure measurement (O'Brien, Chapman, Rudd & McRoberts, 1971; Meier & Long, 1971). In contrast to methods using a permanently indwelling catheter, this preparation requires no attention between use and does not compromise the long-term survival of the animal.

The loop was prepared in a similar way to that used by earlier workers (Child & Glenn, 1938; Brown & Korol, 1968; Meier & Long, 1971), but in addition we denervated the carotid sinus region.

Blood pressure is measured by inserting a teflon catheter into the artery using the Seldinger technique. A continuous infusion at 0.1 ml/min of sterile 0.9% sodium chloride solution containing heparin 10 units/ml, is maintained during the period of measurement. Blood pressure may be recorded continuously for several hours without difficulty and with no apparent discomfort to the animal.

This technique has proved to be safe and reliable. Dogs have been used at weekly intervals for up to 12 weeks and several dogs have been used more than 40 times over a period of three years with no ill effects.

References

BROWN, M.L. & KOROL, B. (1968). Surgical preparation of externalised carotid artery loops in dogs. *Physiol. Behav.*, **3**, 207–208.

CHILD, C.G. & GLENN, F. (1938). Modification of Van Leersum carotid loop for determination of systolic blood pressure in dogs. *Arch. Surg.*, **36**, 381–385.

MEIER, M.A. & LONG, D.N. (1971). Carotid artery loop for repeated catherization of the left ventricle in dogs. *Surgery*, **70**, 797–799.

O'BRIEN, D.J., CHAPMAN, W.H., RUDD, F.V. & McROBERTS, J.W. (1971). Carotid artery loop method of blood pressure measurement in the dog. *J. Appl. Physiol.*, **30**, 161–163.