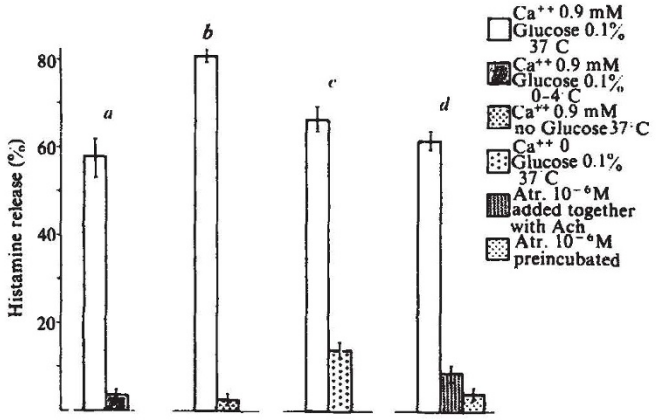


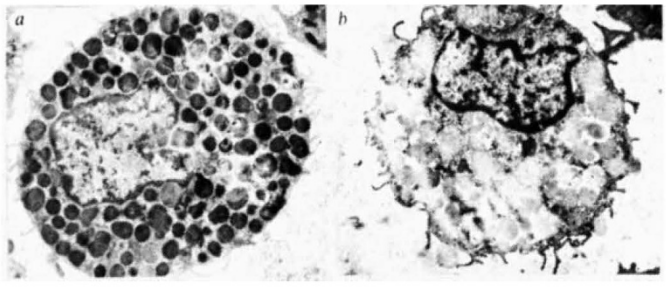
Fig. 3 Effect on histamine release of *a*, temperature. Mast cells induced by 10^{-10} M acetylcholine (———) and 10^{-6} g choline, then at 37 °C for 10 min with the releasing agent[14]. *b*, Glucose deprivation. Cells were incubated in a glucose-free medium. *c*, Withdrawal of extracellular calcium. Cells were incubated in a calcium-free medium. *d*, Atropine. In the first group of experiments, cells were preincubated with atropine for 15 min, then centrifuged and resuspended in the solution containing acetylcholine; in the second group of experiments, both drugs were added simultaneously to the cell suspension. Atropine up to 10^{-4} M was devoid of any histamine releasing activity. In each case, 10^{-10} M acetylcholine was used, six experiments were carried out, and the mean ± s.e.m. ($P>0.01$) is indicated.

tion, by withdrawal of extracellular calcium, and by atropine. Atropine caused blocking either when added together with acetylcholine, or when the cells were preincubated and washed before exposure to acetylcholine (Fig. 3).

Electron microscopy of a control cell is shown in Fig. 4*a*. The granules are present as homogeneous, dense-staining cytoplasmic inclusions, surrounded by their granule membranes. The cell membrane is associated with a few microvilli, but it is otherwise relatively smooth in contour. After treatment with acetylcholine, electron microscopy reveals granule changes (Fig. 4*b*), including the enlargement of the space between the granule and its membrane, swelling, and a reduction in its electron density and homogeneity. Some granules are discharged from the cell, but most remain within the cell, lying in a network of cavities that have been shown to communicate with the extracellular space. Similar features have been reported in rat peritoneal mast cells exposed to 48/80 (type 3 and type 2 cells, according to Krüger[12]).

Our results, showing that acetylcholine can affect rat mast cells by evoking a sequential exocytosis, suggest that it would be worthwhile to study the relationship between cholinergic activity and the secretory response of mast cells.

Fig. 4 Isolated mast cells were incubated for 10 min at 37 °C in the medium previously described with or without acetylcholine (10^{-10} M), then collected by centrifugation and fixed by the addition of a double volume of cold glutaraldehyde (3% in 0.1 M Na-cacodylate buffer, *p*H 7.3; 0–4 °C for 15 min; room temperature for 60 min). Post-fixation was in 1% osmium tetroxide (OsO_4) in 0.1 M Na-cacodylate buffer at room temperature, according to the procedure described by Lawson *et al.*[11]. Electron micrographs: *a*, control mast cells (×10,500); *b*, treated mast cells (×10,500).



ROBERTO FANTOZZI
EMANUELA MASINI
PATRIZIO BLANDINA
PIER FRANCESCO MANNAIONI
TATIANA BANI-SACCHI

Department of Pharmacology,
Department of Histology,
University of Florence,
Viale G. B. Morgagni, 50134-Firenze, Italy

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Corrigenda

In the letter 'Unintegrated ribosomal genes and their relation to position effect variegation in *Drosophila melanogaster*' by C. I. Zuchowski-Berg, *Nature* **271**, 60, the author's address should read: Division of Cell and Molecular Biology, SUNY at Buffalo, New York 14214. The authors present address is: Department of Biology, Princeton University, Princeton, New Jersey 08540.

In the letter 'Selection effects in redshift distribution of QSOs' by D. Basu, *Nature* **273**, 310, the journal in ref. 2 should be *Astrophys. Lett.*