

Early detection in saliva of polypeptides associated to isoproterenol-induced mouse parotid hypertrophy

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Chronic administration of isoproterenol (IPR) results in a marked hypertrophy and in the induction of a group of putative proline-rich polypeptides in the mouse parotid glands. Some of these polypeptides (pps C-G) have been considered as molecular markers of the parotid gland enlargement. Given the secretory character of polypeptides C-G, the polypeptide composition of mouse saliva was used to monitor the IPR-induced salivary gland hypertrophy. Whole saliva was collected after an oral administration of pilocarpine (PIL). Under those conditions, PIL provoked a massive salivary secretion both in normal control mice and during the whole course of the IPR-induced gland enlargement. Striking changes in the polypeptide composition of saliva obtained from chronically IPR-stimulated animals were observed. Those changes consisted basically in the appearance and progressive increase in concentration of parotid polypeptides C-G and in the progressive diminution in concentration of a couple of nor