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ESTROGENS AND THEIR METABOLITES IN NORMAL HUMAN BREAST CELLS AND ESTABLISHED HUMAN TUMOUR CELL LINES.

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This paper reports studies on both metabolic conversion and intratissular concentration of estrogens and their metabolites using a wide spectrum analytical approach. Reverse-phase high performance liquid chromatography (RP-HPLC) with radioactive (RA) or electrochemical(EC) detectors " on line " have been utilized after a computer-aided optimization of the mobile-phase. This analytical approach was then applied to either large breast or endometrial tumours, looking at intratumoural steroid concentration using ECD, or at metabolism (radioactive 14-C and 3-H) by established human breast and endometrial cell lines.

In all cases tissue steroid profiles were compared with an evaluation of the hormone-sensitive (HS) status of either tissue or cells. Estrogen Receptors and their different isoforms were characterized by size-exclusion HPLC. Results were also compared with those obtained from primary culture of normal human breast cells, with particular reference to catecholestrogens because of methodological problems encountered and associated with this class of steroids.

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