Kinin receptors in stimulated and characterized decidua tissue-derived cells.

Abstract: Bradykinin and its kinin B(2) receptor are autocrine and paracrine mediators in foetal membranes and decidua. As a first step we characterized the intracellular morphology of decidual cells. Cultured decidua tissue-derived cells immunolabel for vimentin fibrils, and are considered to be of mesenchymal origin. They show characteristics of macrophages and can be distinguished from endothelial cells and cells of the trophoblast lineage. These cellular features were determined by means of immunocytochemistry. Furthermore cultured decidua tissue-derived cells express kinin B(2) receptors and in this context we demonstrated its expression at mRNA level by in situ reverse transcriptase polymerase chain reaction. Following stimulation with bacterial lipopolysaccharide, we have observed a marginal upregulation of the expression of kinin B(1) receptors and carboxypeptidase M by quantitative RT-PCR. Equilibrium binding experiments with [(3)H]des-Arg(10)-kallidin, the kinin B(1) receptor agonist, did not result in detectable binding sites.