Elafin belongs to the antileukoproteinase family of proteinase inhibitors and regulates neutrophil elastase and proteinase 3 during inflammatory events. Hydrosalpingix is a chronic inflammatory process in the Fallopian tubes, and it has been shown that it has repercussion in the endometrial epithelium. The objective of this study is to investigate the protein expression of elafin in the endometrium of women with hydrosalpingix, and to compare with normal fertile women. Endometrial biopsies from normal fertile women (women submitted to tubal ligation; n=8, and women with hydrosalpingix; n=8) were performed during menstruation. Samples were fixed in formalin and paraffin embedded for immunohistochemistry. Samples were incubated with mouse antielafin antibody at 1:10 dilution. Protein expression was analysed through optical microscopy using HSCORE in both groups in a blind fashion. This study was approved by ethical committee from HCPA. Intra-observer agreement had a bias of 0.3+-0.5. No difference was identified comparing elafin expression in glands and stroma in both groups. However, it was statically reduced in the lumen and leukocytes. In the presence of hydrosalpingix, elafin expression is reduced in leukocytes and in the lumen of the endometrium, but not in the endometrial glands and stroma.