were studied for mRNA levels of TGF-β1 ligand, TGF-β receptor1 & 2 (TGFβRI&II), Smad2 and Smad4 genes. mRNA expression was quantified by delta Ct (ΔCt) values obtained from quantitative PCR tests and fold change in expression by ΔΔCt values from ΔCt of reference endometrial sample. The association of these mRNA expressions with tumour-related characteristics and recurrences was assessed using non-parametric tests as Mann-Whitney U test & Kruskal Wallis test.

**Results** 49 patients were considered for analysis. Majority were of endometrioid histology, lower grade, and stage I. 84% of endometrial cancer samples demonstrated underexpression of Smad2. Loss of Smad2 was significantly associated with myo-invasive tumours and tumours >2 cm. Loss of TGFβRII expression was related to parametrial invasion and stage IV disease, while reduced TGFβRI expression to clear cell histology. During a median follow up of 15.4 months, there were three recurrences. Loss of TGFβRII expressions was significantly associated with recurrence. Mean ΔΔCt value of >1.950 for smad2 and TGFβRII expression was associated significantly with a reduced 1.5 year recurrence-free survival.

**Conclusion** TGFβ pathway components undergo changes in endometrial cancer. Impaired expression is observed at every level of signalling pathway, Loss of Smad mRNA expression and TGFβ receptor levels have certain associations with aggressive features and can predict recurrence risk.