Conclusions Robotic endometrial cancer staging using da Vinci SP system was feasible and comparable to Xi system.

MODIFICATIONS IN LOCAL EXPRESSION OF INSULIN-LIKE GROWTH FACTOR 1 (IGF1)-RELATED COMPONENTS MIGHT INFLUENCE THE PROGNOSIS OF ENDOMETRIOID ENDOMETRIAL CANCER (EEC)

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Objectives To investigate the expression of IGF1, IGFBP1, PTEN, and SGK2 in endometrium tissue among EEC patients and correlate with the clinicopathological characteristics and the prognosis.

Methods A total of 121 participants were recruited from 2014 to 2020 in Universiti Kebangsaan Malaysia Medical Centre (UKM), including the EEC (n=96) and control (n=25) cases. The protein expression of IGF1, IGFBP1, PTEN, and SGK2 in endometrium samples were analyzed using the immunohistochemistry (IHC) staining technique on the tissue micro-array (TMA) blocks.

Results The expression of IGF1, IGFBP1, PTEN and SGK2 were significantly different between both groups, EEC vs control (P<0.05). Several clinicopathological characteristics are significantly associated with respective biomarkers (P<0.05). High IGF1 and SGK2 expressions significantly decreased the progression-free survival (PFS) and overall survival (OS) in EEC patients with advanced-stage (stage II, III and IV) and grades 2&3 (P<0.05). While, negative expression of PTEN and IGFBP1 were significantly associated with a poor prognosis (P<0.05) in EEC patients with advanced-stage and grade. Multivariable Cox regression analysis revealed that the advanced stage of EEC was the only factor independently associated with a shorter PFS and OS among EEC patients (P<0.05). There was no significant association with survival trends between the investigated biomarkers, even though there was a tendency to predict shorter survival in cases with higher IGF1 and negative PTEN expression.

Conclusions The expression modifications in the IGF1, IGFBP1, PTEN, and SGK2 influence EEC development. IGF1 and PTEN expression might be affecting the shorter PFS and OS among the advanced stage EEC