Introduction/Background Aggressive angiomyxoma is an infrequent mesenchymal tumor, primarily arising in the soft tissue. Either diagnosis and treatment are challenging and proper surgical planification is crucial to remove the tumor completely. We present a surgical video about complete excision of massive vulvar angiomyxoma.

Methodology A 43-year-old patient was suspected of vulvar angiomyxoma due to vulvar asymmetry. MRI and 3D reconstruction were performed for surgical planification and high tumor of 195x159 mm (wide x length) was observed from left ischio-anal fossa to left para-vesical space. Patient underwent a combination of robotic (Da Vinci Xi System®) and conventional vaginal approach. Pathological results confirmed aggressive vulvar angiomyxoma. After 30 days from surgery, no complications were recorded. The patient was discharged after 48h from surgery.

Conclusion Optimal surgery planification is mandatory for infrequent tumors such as vulvar angiomyxoma. 3D reconstruction, even augmented reality, are excellent tools for guiding surgery. Combination of abdominal approach by robotics and conventional vaginal approach, allows to complete challenging surgeries as high volume angiomyxoma.

Results Overall, 39 patients were included with a median age of 70 years (46–85). Of those 19 patients relapsed within a median duration of 30.5 months (5–132 months). Twelve patients (63%) experienced at least a second relapse. The presence of composite co-morbidity significantly affected the interval to recurrence (30.09 months vs 71.80 months, p=.032). Univariate Cox-regression analysis revealed that the presence of composite pathology features was indicative of a higher risk of recurrence (HR -3.71, p=.024). The sample size did not allow for patients with SD and PD respectively (p=0.002).