(using the modified frailty index, mFI) and post-operative complications. Statistical analysis of the frequency distribution of the population data as well as postoperative complications according to frailty status was performed. Differences between percentages were calculated with Fisher’s exact test.

**Results** Of 31 women who underwent radical vulvectomy (22.6% RV alone), 12 cases (38.7%) had mFI ≥2 (frail). No differences were found between frail and non-frail groups in the type of surgery nor stage. Women with an mFI ≥2 compared with non-frail women were older (≥65yrs: 100% vs 52.6%, p<0.05), more diabetes cases (50% vs 0, p<0.05), hypertension (83.3 vs 26.7 p<0.05) and functional dependence (91.7% vs 10.5%, p<0.05). Post-operative complications in frail women were found in 75% of cases against 47.4% in non-frail group. Wound complications were 75% in frail women vs 47.4% in non-frail (p=0.06). Major complications were 33.3% in frail group vs 5.6% in non-frail (p=0.06). Wound complications were 75% in frail women vs 47.4% in non-frail (of these, wound vulvar disruption was found in frail group 66.7% vs 5.3% in non-frail, p=0.06).

**Conclusion** Despite the small number of cases in our cohort, frailty is observed to have a higher risk of complications after surgical treatment of vulvar cancer.

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**#478 THE VALUE OF PATIENT-REPORTED OUTCOME MEASURE ASSESSMENT AND CIRCULATING TUMOR DNA TO DETECT EARLY RELAPSE DURING SURVEILLANCE IN WOMEN WITH VULVA CANCER**

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**Introduction/Background** Vulva cancer (VC) is a rare disease often diagnosed in elderly, comorbid women. Despite treatment with curative intent, up to 40% will experience at least one recurrence. Knowledge on intervention and prevention of recurrence primarily relies on small retrospective studies. There is a lack of valid biomarkers for risk stratification of women with VC. Identification of circulating tumor DNA (ctDNA) represent a novel technological advancement for personalized risk assessment and treatment allocation, and systematic assessment of patient reported outcome measures (PROMs) represent a valid method for early detection of recurrence. A combined approach may pave the way for future implementation of individualized follow-up. The aim of the present PhD study is to investigate different aspects of recurrence detection in women with VC to optimize the current surveillance program.

**Methodology** We will conduct a prospective cohort study with a mixed method research design. We will collect and analyze quantitative PROM data and qualitative procedural data during surveillance in women with VC to evaluate symptomatology and identify warning signs which may trigger early clinical check-up. Further, we will collect liquid biopsy to conduct a proof-of-concept study to identify ctDNA in women with VC at the time of diagnosis and prospectively during surveillance.

**Results** Patient enrollment is expected to start in summer 2023 and will run for approximately 5 years. We expect to include 250 patients.

**Conclusion** Our results will contribute with new knowledge to the field of individualized surveillance programs for women with VC. In time detection of recurrence is crucial to offer curative treatment with as limited need for mutilating surgery as possible. Follow up data from the two parallel studies will investigate if a combination of PROM assessment and ctDNA monitoring at the time of diagnosis and over time improves treatment allocation, recurrence detection, survival, and quality of life.

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