cancer is infrequent, corresponding to 1–2% of all female genital tract cancer diagnoses. Treatment for vaginal cancer varies depending on tumor histology, size, location, and staging and may include one or more of the following: surgical excision, radiation therapy and/or chemotherapy. All treatments negatively affect fertility/pregnancy outcomes. Pelvic radiation therapy, even in doses < 2 Gy, may extinguish up to 50% of immature oocytes. In addition, radiotherapy may cause modifications in cervical length, loss of uterine junctional zone anatomy and lead to myometrial atrophy and fibrosis, increasing the risk for adverse pregnancy outcomes.

**Methods** We reviewed the medical charts of a patient who carried a pregnancy to term after surgery and brachytherapy for vaginal cancer.

**Results** A 28 year-old woman, presented with a 3 cm right vaginal wall tumor, diagnosed as grade 3, vaginal squamous cell carcinoma -FIGO 2009, stage IB. Computed tomography showed no evidence of lymph node spread or distant metastasis. The patient underwent surgery followed by 4 sessions of vaginal brachytherapy totaling a dose of 6 Gy at a 5 mm depth. One year and 9 months after treatment, the patient gave birth to a healthy child at 40 weeks. A C-section was needed due functional dystocia during labor.

**Conclusions** This is the first case report of a successful pregnancy carried to term after surgery and brachytherapy for vaginal cancer.

**Abstracts**

**EP417/#795 VALUE OF SURGICAL LYMPH NODE ASSESSMENT FOR PATIENTS WITH VULVAR MELANOMA**

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**Objectives** Investigate the utilization and outcomes of lymphadenectomy (LND) for patients with vulvar melanoma.

**Methods** Patients with vulvar melanoma, known depth of tumor invasion, no distant metastases, with/without inguinal lymph node sampling/dissection (LND) were identified. Median overall survival (OS) was compared with log-rank test. A Cox model was constructed to control for confounders.

**Results** 1286 patients were included; 808 (62.8%) underwent LND. 8.6% of patients had chemotherpay and/or radiation therapy. Performance of LND was associated with younger age (median 66 vs 76 years, p<0.001), private insurance (42.9% vs 27.8%, p<0.001), tumor ulceration (65.9% vs 58.6%, p<0.001), deeper tumor invasion (p<0.001) and radical vulvectomy (26.4% vs 12.1%, p<0.001). Rate of LND was 55.9% when invasion ≤ 1 mm, 20.8% when 1.01–2.0 mm, 73.6% when 2.01–4.0 mm and 64.3% when >4 mm. LN metastases were found in 288 patients (35.6%); 26.3% when depth of invasion ≤1 mm, 20.8% when 1.01–2.0 mm, 35.9% when 2.01–4.00 mm and 50.5% when >4 mm (p<0.001). Patients with LND had better OS than those who did not (median OS 49.08 vs 35.91 months, p<0.001). Following stratification by Breslow thickness, patients with LND had better OS with invasion 1.01–2.0 mm (median OS 83.32 vs 44.45 months, p<0.001), 2.01–4.0 mm (median OS 52.57 vs 28.16 months, p<0.001) and >4.0 mm (median OS 31.93 vs 21.32 months, p<0.001) but not <1 mm (p=0.44). After multivariable analysis, LND was associated with better OS (HR: 0.78, 95% CI: 0.67, 0.92).

**Conclusions** For patients with vulvar melanoma with at least 1 mm invasion, LND is associated with better OS.

**EP418/#181 OUTCOMES OF POSITIVE GROIN SENTINEL LYMPH NODE BIOPSIES IN VULVAR SQUAMOUS CELL CARCINOMA AND HPV STATUS: A POPULATION BASED STUDY**

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**Objectives** The GROINSS-V II study identified a threshold of 2 mm in positive inguinoemoral sentinel lymph nodes (SN) in vulvar squamous cell carcinoma (VSCC) for guiding subsequent treatment. The objective of this study is to stratify isolated groin recurrence rate of SN micrometastases (ITC and ≤2 mm) versus macrometastases (>2 mm) in the context of HPV status.

**Methods** Retrospective population based cohort from British Columbia, Canada included patients diagnosed from 2005–2020 with VSCC and positive SN. Tumour HPV status (independent/dependent) was determined with p16 immunohistochemistry or differentiated VIN pathology. Radiotherapy plans were reviewed for dose and volumes.

**Results** There were 232 patients of whom 38 (16.4%) had positive SN, 21 (55%) of these had HPV independent disease. Average follow up was 51 months (6–172). There were 10 (26%) with micrometastases; 1 of 3 recurred in the groin after adjuvant inguinofemoral radiotherapy, and 0 of 7 recurred after inguinofemoral lymphadenectomy (IFL). There were 28 (74%) with macrometastases; 1 of 2 recurred in the groin with no adjuvant therapy, 4 of 13 with adjuvant radiotherapy alone, and 0 of 3 after IFL. There were 2 of 10 who had IFL and adjuvant radiation who recurred with both groin and distant disease within 6 months of diagnosis. All recurrences in the macrometastatic subgroup were HPV independent.

**Conclusions** Isolated groin recurrence rate after adjuvant radiation only with macrometastatic SN in VSCC is high, in keeping with GROINSS-V II findings. All groin recurrences in macrometastatic SN were in HPV independent tumours, implying need for alternate treatment in this subgroup.

**EP419/#488 GROIN NODE MANAGEMENT IN SURGICALLY UNRESECTABLE, LOCALLY ADVANCED VULVA CANCER**

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