

cohort as well as the WDLPS/G1-2 DDLPS subgroup. Comparisons were made between treatment arms ("surgery alone" and "RT + surgery"), followed by multivariable analysis to identify independent predictors of major postoperative complications.

Results: Overall, 41 of 242 patients (17%) developed major postoperative complications; 22 of 128 (17.2%) in the "surgery alone" and 19 of 114 (16.7%) in the "RT + surgery" arm. In the WDLPS/G1-2 DDLPS subgroup, 20 of 122 (16.4%) developed major postoperative complications; 8 of 59 (13.6%) in the "surgery alone" and 12 of 63 (19%) in the "RT + surgery" arm. In both the whole cohort and the WDLPS/G1-2 DDLPS subgroup, the most common complication was intra-abdominal collection, with an incidence rate of 7.4 per 100 patients in both groups. On the multivariable analysis for the whole cohort, the weighted resected organ score (OR 1.41, 95% CI 1.09-1.84, $p < 0.001$), and WHO performance status ≥ 1 (OR 2.4, 95% CI 1.05-5.46, $p = 0.03$) were found to be the only independent predictors of major postoperative complications. "RT + surgery" was not found to be associated with major postoperative complications in either the whole cohort (OR 0.83, 95% CI 0.40-1.73, $p = 0.62$), or in the "WDLPS/G1-2 DDLPS" subgroup (OR 1.31, 95% CI 0.46-3.71, $p = 0.61$).

Conclusion: Preoperative RT does not independently increase the risk of major postoperative complications in patients with retroperitoneal sarcoma, including those with WDLPS/G1-2 DDLPS.

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PSOAS MUSCLE WELL DIFFERENTIATED LIPOSARCOMA: A DISTINCT ANATOMIC SUBSET WITH HIGHLY FAVORABLE OUTCOMES

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Objective: Retroperitoneal (RP) liposarcoma is a heterogeneous disease categorized by histologic subtype (well differentiated, WD versus dedifferentiated, DD), grade, and morphologic variance (e.g., sclerotic, inflammatory, etc). We sought to describe clinical outcomes for a subset of WD RP liposarcoma defined by anatomic location: tumor confined to the psoas muscle.

Methods: Data were reviewed for all patients with primary WD liposarcoma who underwent curative intent, complete resection at a high-volume referral center from 2006 to 2021. Patients with recurrent disease or DD liposarcoma were excluded. For specific cohorts, clinicopathologic data were summarized. Crude cumulative incidences of local recurrence (LR) and disease-specific death (DSD) were estimated in competing risk framework.

Results: In total, 254 patients were stratified by anatomic location of their tumor: 12 RP psoas (Group A), 123 RP non-psoas (B) and 119 extremity (C). Tumor size was greater in Groups A (median 20.0 cm) and B (25.0 cm) versus Group C (15.0 cm), as expected (SMD 0.747). In Group A, 8 out of 12 patients (67%) did not undergo concomitant organ resection; the remaining 4 patients (33%) had one (psoas muscle in 3, femoral nerve in 1). By contrast in Group B, 118 patients (96%) had 2 or more organs resected (SMD 5.606). None of the patients in Group A receive pre- or postoperative radiation or chemotherapy. With a median follow-up of 8.8 years, no LR occurred in Group A. 5-year incidence of LR was 16.3% in Group B and 2.9% in Group C (extremity) ($p < 0.001$). No DSDs occurred in Group A or C, whereas 5-year incidence of DSD was 1.9% in Group B. Histomorphologic features in the 12 RP psoas tumors are summarized (Table).

Conclusion: In patients with psoas muscle WD liposarcoma, local control rates and survival are highly favorable after surgery alone and appear to approximate those in patients with extremity disease (aka, "atypical lipomatous tumor"). With further multicenter validation, a more conservative approach to management may be indicated in this anatomically defined subset of RP liposarcoma. Further investigation is warranted to explore deeper differences in disease biology.

Lipoma-like	Sclerosing	Inflammatory	Cellular
10	8	4	1

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IDENTIFICATION OF PATIENTS WITH DESMOID FIBROMATOSIS FOR ACTIVE TREATMENT: RESULTS FROM AN INTERNATIONAL MULTICENTRIC PROSPECTIVE OBSERVATIONAL STUDY

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Objective: Active surveillance (AS) is now considered the frontline strategy for the vast majority of patients affected by sporadic desmoid fibromatosis (DF). However, a subgroup of patients may experience disease progression (PD) and require active treatment (AT). The aim of this study is to identify DF pts with low spontaneous regression probability (SRp), who may be upfront candidates for AT.

Methods: Patients enrolled in the two previous published observational studies on AS conducted in Netherlands and Italy were included. PD and SR were defined as a diameter increase $\geq 20\%$ and a decrease $\geq 30\%$ from the date of enrolment. Post-PD regression was evaluated from the date of PD. Stratified Kaplan Meier curves provided 1- and 2-year SRps. Baseline characteristics included age, size, site and β -catenin mutation (β -mut) status. Subgroup analyses (SA) were performed using Cox models to identify those pts with the lowest SRps.

Results: Of 195 pts, SR occurred in 94 (48%), including 26 post-PD regressions. The median time to SR (m-SR) was 16 months (IQR: 7-38). The post-PD m-SR was 23 months (13-30). The 2-year SRps were 19% (0-35) and 33% (28-50) for 45F and 45P, and 42% (16-59) and 40% (28-50) for WT/Other and 41A respectively. Patients with 45F and 45P β -mut showed a delayed SR with a m-SR of 50, (25-63) and 38 months (25-49), respectively compared with WT (33 months, 22-89) and 41A β -mut (28 months, 24-46). The 2-year SRps were 26% (12-33) and 41% (30-50) for extremities/thoracic wall (ETW) and other DT respectively. eTW DF regressed later (m-SR: 58 mos; 5-89) than other DT (mSR: 27 mos; 24-35). Of 26 pts with 45F β -mut, 16 (62%) had ETW DF and showed a markedly lower SR likelihood (HR 0.15; $p = 0.09$), with only 2 pts regressing, 1 post-PD. Of 27 pts with 45P β -mut, 6 (22%) had eTW DF with an HR of SR of 0.33; $p = 0.15$), with only 2 pts regressing, 1 post-PD. Baseline tumor size (cm) was associated with a lower SRp (HR: 0.814; 0.698-0.950; $p = 0.009$).

Conclusion: Patients with ETW DF harboring 45(F-P) β -mut show markedly low SRps: early active treatment should therefore be considered. In contrast, pts with DF harboring 41A β -mut and non-extremity location exhibit higher SRps and may safely undergo watchful waiting. Ultimately, the goal is to personalize the approach through a prognostic tool, but achieving this requires increasing the number of patients by including additional centers.

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IMPACT OF ADVERSE SOCIAL EXPOSOME ON THE TREATMENT OF TENOSYNOVIAL GIANT CELL TUMOR

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Objective: Tenosynovial giant cell tumor (TGCT) is a rare locally aggressive neoplasm with a high misdiagnosis rate, significant delay in diagnosis, and fragmented care. An adverse social exposome negatively affects many diseases, but its association with TGCT is unknown. This study examined the association between Area Deprivation Index (ADI), which combines several sociodemographic indicators (e.g., income, education, employment, housing), and TGCT treatments in the United States (US).

Methods: This is a retrospective analysis of the TGCT Support Patient Registry from October 06, 2022, to December 06, 2024. Data included patient-reported demographics, clinical and pathologic characteristics, residential address, treatments,