
Prediction of Morbidity Following Surgery for Primary Retroperitoneal Sarcomas Using a Surgical Complexity Score: An Analysis within the Retroperitoneal Sarcoma Registry (RESAR)

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Study Aim:

To develop a surgical complexity score for patients undergoing surgery for primary retroperitoneal sarcoma and evaluate its ability to predict 30-day postoperative morbidity (Clavien-Dindo grade ≥ 3)

- RESAR patients January 1st, 2017- July 1st, 2020 (?)
- Data transfer forms being finalized
- Update RESAR datasets with date of complication out to 30-days postop

TABLE 1. Surgical complexity scoring system based on the sum of points determined from patient factors, resection pattern, organs resected, and disease burden.

Patient Factors	Score	Organs resected	Score
Age ≥ 65	1	Liver	1
Diabetes	1	Psoas muscle	1
Body mass index ≥ 30	1	Psoas fascia	0
Hypertension/coronary artery disease	1	Femoral/sciatic nerve	1
ECOG score ≥ 2	1	Colon (left, right, transverse)	1
Chronic obstructive pulmonary disease	1	Rectum	1
Chronic kidney disease	1	Adnexa or spermatic cord	1
Neoadjuvant chemotherapy/radiation	1	Uterus	1
Resection Pattern		Parietal muscle	1
Vascular resection	4	Diaphragm	1
Pancreaticoduodenectomy ^a	4	Kidney	1
Colon, kidney, spleen, pancreas +/- other	1	Adrenal gland	0
Disease Burden (cumulative size of resected tumors)		Bone	1
Low ($<10\text{cm}$)	0	Pancreas	1
Medium ($10\text{-}20\text{cm}$)	1	Spleen	1
High ($>20\text{cm}$)	2	Iliac vein	1
Surgical Complexity Score		Inferior vena cava	1
Low	≤ 5	Small bowel	1
Intermediate	6-9	Stomach	1
High	≥ 10	Duodenum	1
		Iliac artery	1

^aPancreaticoduodenectomy organ count includes duodenum/pancreas only.