

Unplanned readmission & ER visit rates following sarcoma surgery

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Introduction:

Sarcomas are usually a wide, substantial, and heterogenous group of neoplasms, that originate from mesenchymal cells from which they develop to mature into striated skeletal, smooth muscle, adipose and fibrous tissue, bone, cartilage, and other tissues. Primary soft tissue and bone sarcomas are uncommon cancers that necessitate extensive surgical resection and repair to establish local control. Adjuvant therapy delays due to postoperative problems may have an impact on long-term oncological results. Sarcomas make up more than 20% of all solid malignant. Surgical resection is by far the most effective treatment modality available for the vast majority of soft tissue sarcomas. We will estimate the incidence of complications and risk factors in the first ninety days following surgical management of bone and soft tissue sarcoma at King Abdulaziz Medical City (KAMC) and evaluate the risk factors leading to ER visits and readmission.

Methods:

The proposed study is a retrospective cohort study that will be conducted in King Abdulaziz Medical City in Riyadh, Saudi Arabia. The study will estimate the incidence of complications and risk factors in the first ninety days following surgical management of bone and soft tissue sarcoma. The data will be collected from the Best Care system. All patients diagnosed with bone or soft tissue sarcoma from January 2016 up to July 2022 and following our inclusion and exclusion criteria will be included in the study. Demographics of the patients, type of sarcoma, comorbidities, complications, and unplanned ER visits and readmissions will be taken into consideration to achieve the aim of the study.

Conclusion:

We concluded that more than half of the patients who usually visit ER and get readmitted following sarcoma surgery have comorbidities prior to the surgery, which leads to many complications.

References:

- Hatina J, Kripnerova M, Houfkova K, et al. Sarcoma Stem Cell Heterogeneity. *Adv Exp Med Biol*. 2019;1123:95-118.
- Burningham Z, Hashibe M, Spector L, Schiffman JD. The epidemiology of sarcoma. *Clin Sarcoma Res*. 2012;2(1):14.

Result:

One hundred seventy-six patients were identified from one thousand sixty-nine. The most frequent complication leading to ER visits only was pain (7 patients) and over 57% had comorbidities. On the other hand, Redamation's most common complications were ER visits and treatment (27, 22 patients). Overall unplanned ER visits and readmission occurred for 15.9% of patients.



Chart 1: ER visits in relation to comorbidities.

Table 1: The number of patients visiting according to comorbidities and complications.

	ER and readmitted (N=2)	ER only (N=30)
Presence of comorbidities	11 (13.3%)	19 (22.9%)
complications related to surgery	22 (68.8%)	28 (57.1%)

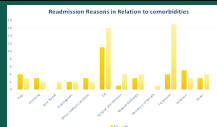


Chart 2: ER visits and readmission in relation to comorbidities.

	ER only (N=30)	ER and readmitted (N=28)
Chemotherapy preoperative	7 (12.7%)	15 (27.3%)
Chemotherapy postoperative	14 (16.7%)	23 (27.4%)
Radiotherapy preoperative	7 (16.3%)	5 (11.6%)
Radiotherapy postoperative	9 (15.3%)	9 (15.3%)

Table 2: The number of patients visiting according to management therapy pre and post-operative.

