

Editorial

# Surgical Trend in Ewing's Sarcoma: From the Limb Amputation to

Khodamorad Jamshidi<sup>1</sup>(MD), AlirezaMirzaei<sup>1\*</sup>(PhD)

## Author Information

1. Bone and Joint Reconstruction Research Center, Shafa Orthopedic Hospital, Iran University of Medical Sciences, Tehran, IR Iran.

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Ewing's sarcoma (ES) is the second most common malignant bone tumor in childhood and adolescence, with a survival rate of 70-80% for patients with localized disease and nearly 30% for those with metastatic disease(1).For several decades, prior to the introduction of chemotherapy, amputation of the affected limb was the only surgical method for the treatment of ES patients and the survival rate was as low as 10%(2).With the introduction of chemotherapy in the late 1970s and the early 1980s,the survival rate of ES patients was increaseddramatically to nearly 75% (3).

Currently, the standard treatment for nonexpendable bone ES involves neoadjuvant chemotherapy followed by wide excision,

radiotherapy, or a combination of both (4).Nevertheless, the tumor margin should still be defined when deciding on the treatment approach. In this respect, when a wide surgical margin can be achieved in the preoperative imaging studies, wide resection without radiotherapy is the procedure of choice. However, if the prospect of obtaining an adequate surgical margin is uncertain based on preoperative imaging, neoadjuvant radiotherapy should be added. When the preoperative imaging indicates that surgical margins are insufficient, amputation could be regarded as the only available surgical option. Therefore, it is imperative to define the surgical margin appropriately for the accurate selection of the surgical approach (2, 5).

## References

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be achieved in the preoperative imaging studies, wide resection without radiotherapy is the procedure of choice. However, if the prospect of obtaining an adequate surgical margin is uncertain based on preoperative imaging, neoadjuvant radiotherapy should be added. When the preoperative imaging indicates that surgical margins are insufficient, amputation could be regarded as the only available surgical option. Therefore, it is imperative to define the surgical margin appropriately for the accurate selection of the surgical approach (2, 5).

Although wide resection is not as aggressive an approach as amputation is, it is still an extensive surgery with a plethora of complications, especially in children who might outlive their disease(6). For this reason, the efforts have been made to develop less aggressive surgical approaches for the treatment of ES. A recent study by Jamshidi et

al. revealed that a subgroup of ES patients could be successfully treated with a considerably less aggressive surgical approach, which involved extended curettage and local adjuvant therapy. This approach was selected as the strategy of choice for ES patients with desirable prognostic criteria (below 10 years of age and complete radiologic response to neoadjuvant chemotherapy). The rationale behind the study was to prevent compromising limb functions and to eliminate the long-term complications of wide resection, while providing a tumor control comparable to that of wide excision.

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. The results of this study suggested that oncologic outcome of the proposed approach was comparable to that of wide resection, but it also offered a markedly superior functional outcome(7).The results imply that the treatment of ES could be further personalized with respect to patient and tumor characteristics, leading to less aggressive treatment with superior functional outcomes.

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#### **References**

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