

Educing the Dependence on Allogenic Blood in Metastatic Spine Surgery with Intra-operative Autologous Salvaged Blood: A Prospective Clinical Trial

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Objective

To ascertain the safety of autologous salvaged blood transfusion in patients undergoing surgery for spinal metastases.

Methods

This study is a Prospective clinical trial of patients undergoing Metastatic spine tumour surgery. Patients received either Salvaged autologous blood passed through a leukocyte depletion filter (SBT), Allogenic blood transfusion (ABT) or No blood transfusion (NBT) patients. Outcomes measured were survival at 6 months, disease progression and need for allogenic blood transfusion.

Results

In total 79 patients were recruited for this study, of which 6(7.6%) were lost to follow up. In total there were 26 (35.6%) patients within the Salvaged Blood Transfusion group (SBT), 27(37.0%) patients within the Allogenic blood transfusion group, and 20(27.4%) patients within the no blood transfusion (NBT) group. There was no significant difference in patient demographic characteristics (age, sex, race) and disease characteristics in terms of Total modified Tokuhashi score ($p>0.05$.) On multivariate analysis, female gender $p=0.048$ (1.99 (1.01-3.96)), total blood loss $p=0.01$ (0.64 (0.46-0.90)) and total modified tokuhashi score p

Conclusion

In conclusion, our study shows that patients who received salvaged blood transfusion had comparable outcomes in terms of tumour progression and survival to those who received allogeneic blood.