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ORIGINAL ARTICLE

Comparing the Effectiveness of Surgical versus Medical Approaches in Managing Patients with Indeterminate Spinal Instability Neoplastic Scores

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ABSTRACT

Background. Treating indeterminate cases of spinal metastases (those with spinal instability neoplastic score [SINS] of 7–12) remains a clinical dilemma, as there are currently no well-defined recommendations for this category. This study aimed to identify the most appropriate approach for patients with indeterminate SINS by reviewing and analyzing published evidence.

Objective. To determine the effectiveness of surgical and medical approaches in managing spinal metastasis with indeterminate SINS.

Methodology. A comparative effectiveness study was conducted using systematic review and meta-analysis. A systematic search was performed in the following databases: PubMed, Embase, Cochrane Library, and Google Scholar. Studies were selected based on inclusion and exclusion criteria comparing surgical and medical approaches for indeterminate SINS. The outcomes analyzed were patients' functional status, complications, and conversion to surgery/revision surgery. Quantitative data were analyzed using Review Manager version 5.3 software, and results were reported using a forest plot.

Results. Eight studies were included in the qualitative review, and six were included for quantitative synthesis, involving 1,312 patients. In patients with spinal metastasis with indeterminate SINS, surgery resulted in less functional decline than medical management, with a pooled odds ratio (OR) of 0.50 (95% CI: 0.31, 0.81). However, significantly more complications were associated with surgery (OR of 2.6; 95% CI: 1.66, 4.08). The authors reported a pooled result of 21.19% conversion to surgery among those initially managed with a medical approach. In the initial surgery group, there was a significant reduction in conversion to surgery or revision surgery, with an OR of 0.19 (95% CI: 0.10, 0.34).

Conclusion. This study addresses the dilemma of treating spinal metastasis with indeterminate instability, advocating for surgery as the primary intervention due to its potential to improve functional outcomes and provide a satisfactory quality of life, which may, in turn, influence overall survival. This topic can be explored further including identifying a specific SINS threshold that could serve as a criterion for recommending surgery.

Keywords. spinal metastasis, spinal instability neoplastic score, surgery, vertebrectomy, medical management cement augmentation, external beam radiation therapy, stereotactic body radiation therapy

INTRODUCTION

Spinal metastasis is the most common tumor of the spine, presenting with variable clinical manifestations. It may manifest as back pain, with or without neurological compromise due to spinal cord compression, and commonly results in spinal instability.[1] Managing patients with spinal metastasis poses a significant challenge for clinicians, as it requires a multidisciplinary approach.

Treatments for spinal metastases range from medical management to invasive surgical intervention. Medical approaches include pain relievers, bisphosphonates, corticosteroids,

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chemotherapy, radiation therapy, and conservative management. Surgical intervention, on the other hand, focuses on maintaining the integrity of the spine, decompressing the spinal cord or nerves, and performing separation surgery, with options to utilize the advancements in minimally invasive treatment modalities.[2,3] In most cases, surgical intervention is supplemented with medical management. The primary goal is generally palliative, aiming to improve the quality of remaining life by providing adequate pain control, maintaining or improving neurological function and performance status, and achieving local control of the lesion.[4,5]

Multiple decision-making systems have been established, such as prognostication models (i.e., Tomita, Takahashi and Katagiri scoring systems) and principle-based systems (i.e. NOMS and LMNOP frameworks), to help determine the most appropriate treatment option for each patient.[2,3,6-10] Among the various components assessed by each decision-making system, evaluating spinal instability is particularly important, as it serves as an independent indication to consider surgical intervention.[2,3,9-11]

Spinal instability due to cancer is defined as a "loss of spinal integrity as a result of a neoplastic process that is associated with movement-related pain, symptomatic or progressive deformity, and/or neural compromise under physiologic loads."[11] The Spine Instability Neoplastic Score (SINS), introduced by the Spinal Oncology Consortium, is the most widely used classification system. It evaluates six components to determine the instability of the affected vertebral segment(s). Table 1 shows the different factors assessed and scored in SINS. A spinal lesion can have a minimum score of zero or a maximum score of 18, categorizing it as stable (SINS score of 0–6), indeterminate (SINS score of 7–12) or unstable (SINS score of 13–18).[11] Stable spinal lesions do not require surgery and are managed medically, while unstable lesions need surgical stabilization. However, indeterminate lesions present a clinical dilemma, as patients in this category require further investigation to determine if stabilization is indicated.[2,11]

Several frameworks, such as NOMS and LMNOP, use SINS to assess mechanical instability as an indication for offering surgery.[2,9,10] The NOMS framework incorporates the neurologic, oncologic, mechanical stability, and systemic considerations to facilitate decision-making in treating patients with SM.[2] On the other hand, the LMNOP system evaluates the location and level of the spine involved, mechanical instability, neurology, oncology, patient fitness, prognosis, and prior therapy to formulate a management plan.[9,10] The therapeutic approach for indeterminate SINS is unclear and inconsistent in these frameworks. This presents a clinical dilemma, as there are currently no well-defined guidelines or recommendations for managing this patient cohort. To our knowledge, few studies have specifically addressed this clinical issue. This study aimed to identify the most appropriate approach for patients with indeterminate SINS by reviewing and analyzing published evidence.

METHODOLOGY

This was a comparative effectiveness study of two treatment approaches (surgery versus medical management) for patients with indeterminate SINS, using a systematic review and meta-analysis. We searched several electronic databases, including PubMed, Embase, Cochrane Library, and Google Scholar, using the following search terms: "Spinal Metastasis AND Spinal Instability," "Spinal Instability Neoplastic Score," OR "Indeterminate (or "intermediate") Spinal Instability Neoplastic Score," with no restrictions on language. Publications from the year 2000 to 2023 were included. The inclusion and exclusion criteria are listed in Table 2. Two authors (LW, IS) independently screened all eligible full-text studies retrieved. A third author (RT) was consulted to resolve conflicts or discrepancies. A risk of bias assessment was conducted.

The interventions compared were surgery (vertebrectomy, spinal decompression with or without instrumentation and cement augmentation) and medical management (radiotherapy, including external beam radiotherapy [EBRT] or stereotactic body radiotherapy [SBRT], and chemotherapy). The selected studies utilized various outcome measures for functional status, such as the Frankel score, Karnofsky performance scale (KPS), and ambulatory status.[12,13] Additionally, the rates of complications and conversion to surgery/revision surgery were

Table 1. Spinal instability neoplastic score[11]

Elements of SINS	Score
Location	
Junctional (occiput-C2, C7–T2, T11–L1, L5–S1)	3
Mobile spine (C3–C6, L2–L4)	2
Semi-rigid (T3–T10)	1
Rigid (S2–S5)	0
Pain relief with recumbency and/or pain with movement/loading of the spine	
Yes	3
No (occasional pain but not mechanical)	1
Pain free lesion	0
Bone lesion	
Lytic	2
Mixed (lytic/blastic)	1
Blastic	0
Radiographic spinal alignment	
Subluxation/translation present	4
De novo deformity (kyphosis/scoliosis)	2
Normal alignment	0
Vertebral body collapse	
>50% collapse	3
<50% collapse	2
No collapse with >50% body involved	1
None of the above	0
Posterolateral involvement of the spinal elements (facet, pedicle or CV joint fracture or replacement with tumor)	
Bilateral	3
Unilateral	1
None of the above	0

Table 2. Inclusion and exclusion criteria

Inclusion
• Randomized controlled trials (RCTs) and controlled clinical trials (CCTs), peer-reviewed observational studies (cohort, case-control, and cross-sectional) providing data on the effectiveness of surgical intervention and medical management among patients with Spinal metastasis with indeterminate SINS
• Studies published in English or with available English translations
• Studies published from the year 2000 until year 2023
Exclusion
• Studies involving patients with a Spinal Instability Neoplastic Score (SINS) outside the range of 7 to 12
• Studies on non-metastatic spinal diseases or primary spinal tumors
• Review articles, meta-analyses, case reports, editorials, opinion pieces, and letters that do not provide original research data
• Studies with incomplete data or insufficient detail on study design, methods, outcomes, that preclude a meaningful analysis or comparison
• Duplicate studies and data

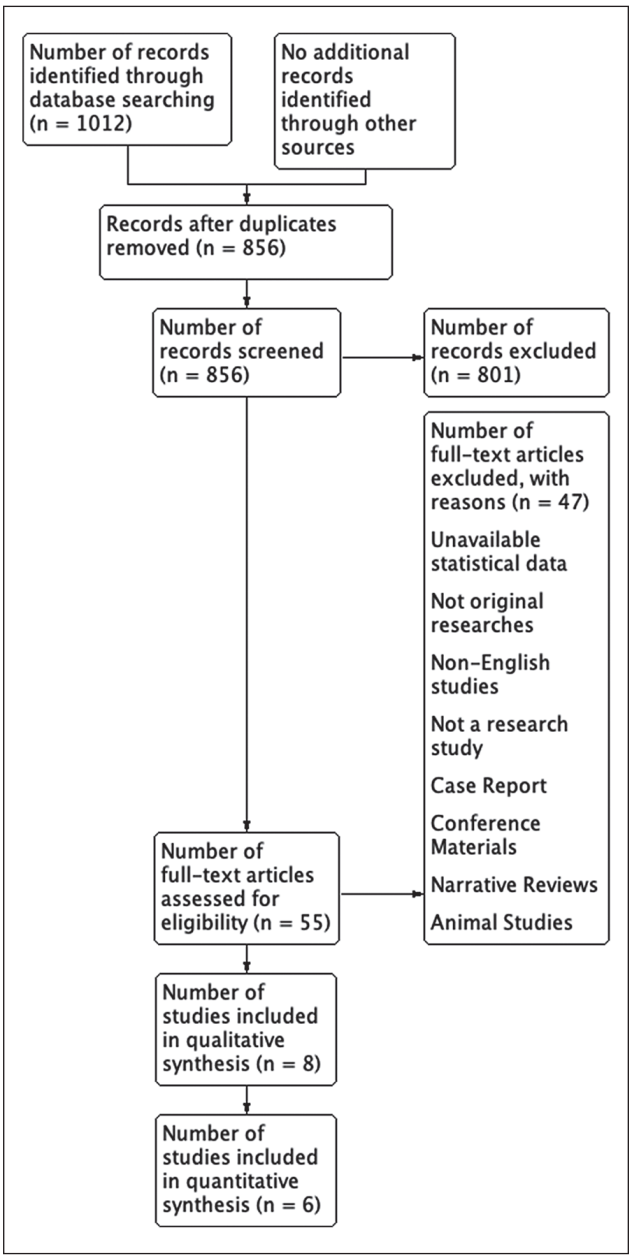

Figure 1. PRISMA Diagram of Studies Reviewed, Included and Excluded.

also measured. The studies were assessed, and the following data were extracted: research design, year of publication, location, patient population and characteristics, duration of follow-up, treatment approach, outcomes, and complications. A systematic review was conducted by obtaining data of interest, which was reported in a standardized format. For quantitative synthesis, Review Manager version 5.3 (RevMan 5.3) software was used, and results were reported using a forest plot. Heterogeneity was also assessed.

RESULTS

The search identified 1,012 articles, which were narrowed down to 55 related studies due to duplicates and exclusion criteria. The next stage involved checking for eligibility by reviewing the full-text articles of the remaining studies. The authors finally decided to include eight studies for qualitative synthesis and six studies for quantitative synthesis, involving a total of 1,312 patients with spinal metastasis classified under indeterminate SINS. The Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) diagram in Figure 1 outlined the study selection process.

The overall and individual study risk of bias (Figure 2) were assessed to determine the quality and reliability of the included studies. The studies were found to have a low to moderate risk of bias. It can be assumed that the reviewed studies are reliable and have the potential to provide strong evidence for the objectives of this study.

The comparative effectiveness of surgical and medical management for spinal metastases with indeterminate SINS is summarized in Table 3. The insights were derived from seven retrospective studies and one prospective study. Zadnik et al. and Donellan et al. primarily focused on the outcomes of surgical management, while no studies specifically addressed the outcomes of medical or conservative approaches.[14,15] The remaining studies in the table compared the effectiveness and outcomes of both surgical intervention and medical management in patients with indeterminate SINS.

Zadnik et al. and Donnellan et al. presented their data on the outcomes of surgical intervention for indeterminate or impending instability, highlighting a significant difference in improved median survival days for patients undergoing surgery (435 days and 79 months, respectively).[14,15] In comparison, Dial et al. reported that surgery combined with radiotherapy offered a longer median survival (430 days vs 121 days), with statistically significant 1-year survivorship rates (59.6% vs 25.8%, with $p < 0.001$). Surgery, age, and Revised Tokuhashi score were identified as predictive factors for the length of survival in these patients. The authors emphasized how patients' performance status influenced survival among those with spinal metastasis.[16]

Regarding functional status, four studies reported on outcome measures such as the Karnofsky Performance Scale (KPS), Frankel score, and ambulation status of patients who

underwent surgery for SM with indeterminate SINS.[14,16-18] Zadnik et al. found that one month after surgery, 65% of patients with more than six months of follow-up achieved Frankel grades D or E, with 88% remaining at Frankel grade E one year after surgery, while 12% were non-ambulatory (Frankel C) at that same time.[14] Dial et al. reported that 90.4% (76 out of 84) of patients retained the ability to ambulate until their time of death.[16] Furthermore, Vargas et al. 2023 demonstrated that KPS scores improved in 60.3% of surgical patients, compared to 32.3% in those who received radiotherapy ($p < 0.001$).[17] The minority of patients experienced neurological worsening in both groups attributed to local tumor recurrence or distant tumor progression, resulting in reduced performance status and central nervous system involvement.[14,16,17] In contrast, only Lenschow et al. reported a non-significant difference in the Frankel score and ambulatory status between instrumented and non-instrumented patients.[18]

Versteeg et al. also reported a significant improvement in terms of pain control and health-related quality of life (HRQOL) among the surgical group, which was maintained up to one year after surgery. The radiotherapy-only group showed similar outcomes regarding pain and HRQOL, but these improvements were sustained only for up to 12 weeks after radiation therapy.[19] This evidence supports the improvement in the quality of life provided by surgical intervention in SM with SINS scores of 7–12.

Given the reported benefits, several authors also presented the complications associated with surgical intervention.[14,18-20] The rate of instrumentation failure after surgery was low (7.75%).[11] However, a high incidence of peri-admission complications (i.e., infection, venous thrombosis, medical-related events) was reported at about 27% to 42.3%.[18-20] Complications were also more frequent in the instrumented group (15.5%) compared to the non-instrumented group (5.1%). These complications included wound healing disorders, wound infections, material dislocation or construct failure, thrombosis, and pneumonia.[18]

Among patients initially treated with radiotherapy, vertebral compression fractures were common at the irradiated levels. The pooled conversion rate to surgery among these patients was 21.19%.[16,17,20,21] This conversion rate to surgery was significant in the first year of follow-up, with little change thereafter.[21] Surgery was indicated due to vertebral collapse, neurological deterioration, severe or intractable pain, tumor progression, and cord compression.[16,17,20,21]

Figure 3 shows the comparative outcomes between surgical and medical management across six different studies using quantitative data. The analysis was divided into three subgroups: A. Functional Status, B. Complications, and C. Conversion to Surgery/Revision Surgery. The individual study results were visually represented with squares proportional to their weight in the analysis, and horizontal lines indicate the 95% confidence intervals (CIs). The vertical line at odds ratio (OR) = 1 represents the line of no effect, where outcomes were equally likely in both groups.

Functional status

Three studies (Dial et al., Vargas et al. 2023, and Lenschow et al.,) were included in this subgroup analysis, comparing the functional status after treatment between the two interventions.[16-18] There were 360 patients in the surgical group and 252 in the medical group. The pooled odds OR was 0.50 (95% CI: 0.31, 0.81), suggesting a smaller decline in functional status favoring surgical management. A substantial heterogeneity (I^2 = 69%) indicated that the results varied significantly across the studies included.

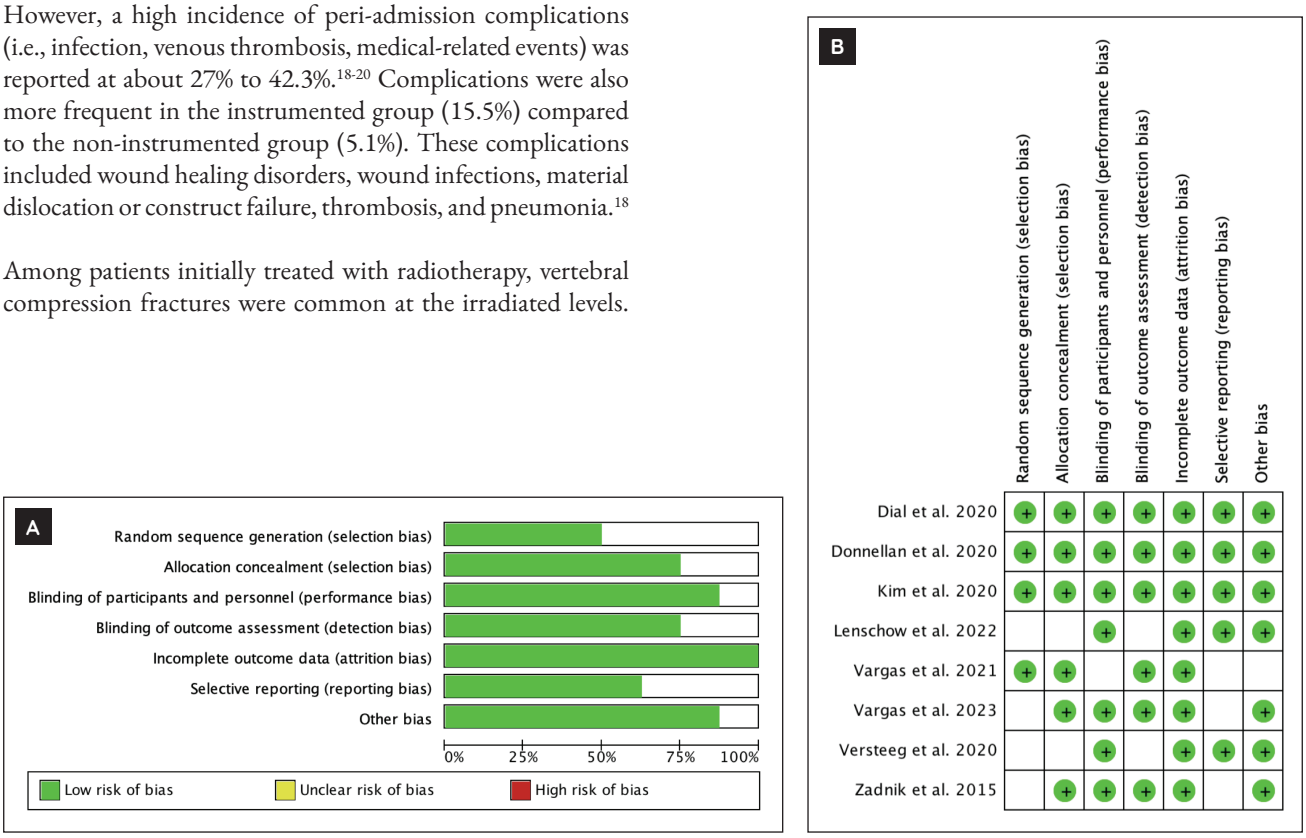

Figure 2. (A) Overall Risk of Bias Assessment. **(B)** Individual Study Risk of Bias Assessment.

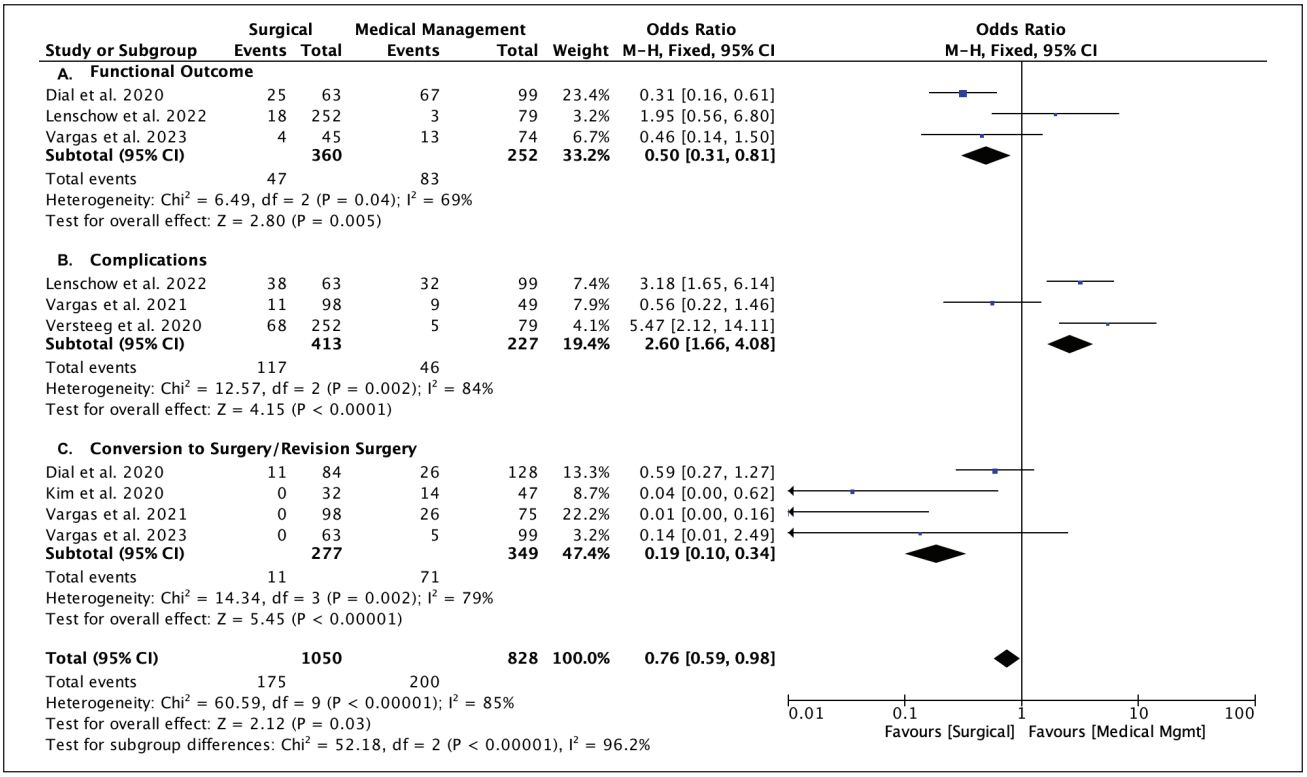

Figure 3. Effectiveness of Surgery Versus Medical Management for Spinal Metastasis with Indeterminate SINS. **(A)** Functional Outcome **(B)** Complications **(C)** Conversion to Surgery/Revision Surgery.

Table 3. Summary of the characteristics of the included studies on the effectiveness of surgery versus medical management for Spinal Metastasis with Indeterminate SINS

Author	Country	Study design	Subjects	Patient's age	Duration of treatment and follow-up	Intervention	Number of participants (n = 1,312)	Study results
Zadnik et al. 2015[14]	USA	Retrospective review	Patients with multiple myeloma with impending spinal instability	Median 58.5 years	Median follow-up 12.5 months	Surgical intervention ± chemoradiation	31 underwent surgery	Surgical intervention for multiple myeloma with impending instability resulted in improved neurological function and low rates of instrumentation failure.
Dial et al. 2020[16]	USA	Retrospective cohort study	Patients with spinal metastatic disease who were neurologically intact and had a SINS of 7 to 12	Surgery Mean Age = 59 Medical Management Mean Age = 66	The median length of follow-up for the cohort was 174 days, ranging from 4 to 2793 days	Surgery, cement augmentation and External beam radiotherapy	Surgery (84) Medical Management (128)	Patients who underwent surgery + radiation had a significantly longer length of survival and higher ability to ambulate at the time of death compared to those who received radiation alone. Ambulatory status is significantly higher among surgery and cement augmentation groups.
Donnellan et al. 2020[15]	Australia and New Zealand	Retrospective cohort study	Patients with malignancy: indeterminate stability	Mean age of 61.3 years	Covered a period of 10 years (2006-2016)	Vertebrectomy	68 underwent vertebrectomy 134 patients	The study demonstrated that SINS can be a valuable prognostic tool in predicting survival time. Patients who underwent surgery showed a statistically significant increase in survival.

Table 3. Summary of the characteristics of the included studies on the effectiveness of surgery versus medical management for Spinal Metastasis with Indeterminate SINS *(continued)*

Author	Country	Study design	Subjects	Patient's age	Duration of treatment and follow-up	Intervention	Number of participants (n = 1,312)	Study results
Kim et al. 2020[21]	South Korea	Retrospective cohort study	Patients with spinal metastasis (SINS 7-12)	Mean 61.3 years	Mean follow-up 20.9 months	Initial radiotherapy vs. surgical intervention	47 initially radiotherapy, 32 initially operative group	In patients with intermediate SINS, 33% required surgery within the first year. Tumors located in T3-T10 or with more than 50% vertebral body collapse were more likely to convert to surgery.
Versteeg et al. 2020[19]	International (multicenter)	Prospective cohort study (multi-center)	Patients with spinal metastases (SINS 7–12)	Mean: 58.9 years (SD 10.2)	Follow-up: 52 weeks	Surgery ± radiotherapy or radiotherapy alone	136 surgery ± radiation, 84 radiation only	Surgery group experienced significant improvements in pain and HRQOL; radiotherapy alone showed less sustained results.
Lenschow et al. 2022[18]	Switzerland	Retrospective observational cohort study	Patients with spinal metastases and SINS 7–12	Median: 64 years	Median follow-up: 3 months	Instrumented vs non-instrumented	252 instrumented and 79 non-instrumented patients	Non-significant difference in improvement in Frankel score (0.73) or ambulation status (0.55) in both groups.
Vargas et al. 2021[20]	USA	Retrospective cohort study	Adult patients diagnosed with metastatic spine disease (SINS 7–12) from 2005 to 2019	Mean age of 57.6 yrs in no surgery, 61.8 in surgery	At least a year of follow-up after initial treatment	Initial radiation vs upfront surgery	49 no surgery, 26 with surgery	34.7% of patients with intermediate SINS eventually required surgical stabilization. Higher SINS scores (>10) and lower Karnofsky Performance Status (KPS) were associated with an increased need for surgery.
Vargas et al. 2023[17]	USA	Retrospective Review	Patients with SINS 7–12, metastatic spinal tumors	61.8 ± 13.5 surgery; 58.8 ± 13.1 radiation	Mean follow-up 1.9 years surgery, 2 years radiation	Surgery vs. stereotactic body radiotherapy or external beam radiotherapy	63 operated patients, 99 underwent radiation	Patients undergoing surgery showed significant improvement in KPS and ECOG scores postoperatively. Radiation therapy alone had a higher incidence of vertebral compression fractures compared to the surgical group.

Complications

This subgroup included studies from Lenschow et al., Versteeg et al., and Vargas et al. 2021, determining the complications associated with each treatment group.[18-20] The pooled OR was 2.6 (95% CI: 1.66, 4.08), suggesting a significant increase in complications associated with surgery. Again, there was substantial heterogeneity (I^2 = 84%).

Conversion to surgery / Revision surgery

The studies included were Dial et al., Kim et al., Vargas et al. 2021, and Vargas et al. 2023, comparing the rates of conversion to surgery or revision surgery.[16,17,20,21] The pooled OR was 0.19 (95% CI: 0.10, 0.34), indicating a statistically significant reduction in the conversion to surgery or revision surgery among those initially treated with surgical management. The heterogeneity was substantial (I^2 = 79%), and the test for overall effect (Z = 6.17, P < 0.00001) showed vital statistical significance.

The quantitative synthesis, which involved 1,050 patients in the surgery group and 828 patients in the medical group, yielded a significant overall OR of 0.76 (95% CI: 0.59, 0.98), with substantial heterogeneity (I^2 = 85%). This suggests that surgical intervention was associated with a lower likelihood of adverse outcomes compared to medical management alone. The confidence interval indicates that this result is statistically significant, as it does not cross 1.0, reinforcing the potential benefits of surgery in this patient population.

DISCUSSION

It is difficult to determine the best approach to treating cases of spinal metastases with indeterminate SINS. This study helps address this dilemma by comparing the effectiveness of surgery versus medical management.

In our review, three studies reported that surgery provides a longer median length of survival.[14-16] A quantitative synthesis to compare the length of survival between both approaches was not feasible due to incomplete reporting of data. Nevertheless, the reported survival benefit may be attributed to improved performance status after surgery. Additionally, when controlling baseline performance status, Dea et al. found that HRQOL at six weeks after surgery was similar regardless of patient survival.[22] This indicates that even in patients with a short life expectancy of less than three months, surgery still offers significant benefits.[22,23]

Ambulatory status, Frankel grade, and KPS scores are predictors of functional outcome, quality of life, and survival.[24-27] During our literature review, no studies specified how many changes in grades or scores were considered improvements. This gap highlights the need for further research to establish specific guidelines for defining improvements in clinical settings. Nevertheless, our systematic review indicates that surgery, compared to medical management, resulted in a maintained or improved functional status as measured by ambulatory status, Frankel score, and KPS score.[16-18] Our subgroup analysis yielded a pooled OR of 0.50 (95% CI: 0.31, 0.81), indicating that surgical management was associated with better preservation of functional abilities (Figure 3A). This is important for patients with spinal metastasis, where maintaining mobility can affect their activities of daily living and quality of life. Moreover, there was a notable enhancement in HRQOL as well as pain control among those who underwent surgery.[19] These improvements underscore the importance of surgical intervention not only in improving performance status but also in enhancing the overall well-being of patients. This surgical benefit has been demonstrated in spinal metastases regardless of the SINS category.[22-26] Thus, the findings support considering surgical options as a viable approach to improve functional outcomes in patients with indeterminate SINS.

Despite the substantial benefits of restoring mobility and reducing pain after surgery, there was an increased risk of complications inherent to surgical procedures. Complication rates from other studies range from 6.5% to 66.7% after surgery.[28-31] This is comparable to our review, which found surgical complications ranging from 27% to 42.3%.[18-20] Our study reported an odds ratio of 2.6 (95% CI: 1.66, 4.08), indicating a significant increase in complications associated with surgery (Figure 3B). These findings emphasize the importance of careful patient selection, where the benefits of functional improvement must be weighed against the likelihood of postoperative risks and complications. It is also crucial to consider independent risk factors for surgical complications, which include age over 65 years, diabetes mellitus, and involvement of three or more levels.[32] In selected cases, providers can offer minimally invasive spine surgery, which has reproducible functional outcomes and pain control with fewer complications compared to traditional open spine surgery.[33-35]

Vertebral compression fractures (VCFs) are common complications associated with radiotherapy.[3,36] Stereotactic body radiotherapy (SBRT) has a five-year rate of VCFs of 22.22%, compared to a 6.67% rate following external beam radiation therapy (EBRT).[36] Our pooled result showed a 21.19% conversion rate to surgery in patients who were initially managed medically. Indications for surgery included vertebral collapse, neurological deterioration, severe or intractable pain, tumor progression, and cord compression.[16,17,20,21] Our analysis in Figure 3C showed an OR of 0.19 (95% CI: 0.10, 0.34), which indicated that patients who received surgical intervention were 81% less likely to require subsequent surgical procedures compared to those who underwent medical management. Therefore, offering surgery as the initial treatment for cases of spinal metastasis with indeterminate SINS appears beneficial. Also, recent evidence still supports the use of SBRT for spinal metastases, providing high rates of pain control and local disease control without significantly increasing the risk of VCFs.[37-39]

Overall, our findings suggest that surgery can offer favorable outcomes, including improvement in functional status and a reduced incidence of conversion or revision surgeries (Figure 3). However, it is important to note that surgery also carries a higher risk of complications. We emphasize that this study focused on treatment outcomes for patients with spinal metastasis with indeterminate SINS. As highlighted by Fisher et al., the SINS score is just one part of the evaluation process.[11] Therefore, the decision to proceed with surgical intervention should involve a multidisciplinary team that considers all aspects of the patient's health and disease status. Furthermore, the availability of spine specialists and logistical factors such as the necessary spine implants, equipment, and funding, should also be considered when creating a treatment plan.

Several limitations were considered in this study. Meta-analyses depend on the quality and rigor of the studies included. A substantial heterogeneity was observed and warrants careful interpretation of these results. Heterogeneity may arise from variations in the study design, patient populations, and methodologies. Additionally, the choice of surgical technique can be influenced by factors beyond clinical outcomes, including surgeon experience, the specific characteristics of the tumor, and patient preferences. There was also significant variability in data reporting across studies, which affected the quality of data extracted. This meta-analysis does not account for these nuanced factors; thus, clinicians should consider them when interpreting our results.

Future research could explore this topic further, as some of the studies in this review have proposed certain SINS cut-offs to determine which patients benefit from surgery versus

medical management.[20,40] Additionally, long-term follow-up studies could provide valuable insights into the durability of outcomes and potential late complications associated with each intervention. This research helps refine and expand our understanding of the effectiveness of surgical intervention and medical management for SM with indeterminate SINS.

CONCLUSION

This study addresses the dilemma in treating spinal metastasis with indeterminate instability (SINS score of 7-12), advocating for surgery as the primary intervention due to its potential to improve functional outcomes and enhance quality of life, which may, in turn, influence overall survival. However, the primary goal of surgery is palliative care rather than extending the patient's survival. The risks and benefits of both surgical and medical interventions must be thoroughly weighed in the treatment plan. Future research should explore this issue further, including the identification of a specific SINS threshold that could serve as a criterion for recommending surgery.

STATEMENT OF AUTHORSHIP

All authors certified fulfillment of ICMJE authorship criteria.

AUTHORS DISCLOSURE

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