Authors Year Country Date of Studies Included AMSTAR Score Total Sample Size	Method	Conclusions
Liu et al. (2016) China Meta-Analysis AMSTAR=9 N=9 studies	**Objective:** To compare outcomes is individuals with traumatic SCIwho had early surgery (<24 hr) with those who had late surgery (>24 hr). **Methods:** Comprehensive literature search of controlled trials reporting on surgery for individuals with traumatic SCI published in English. Data analysis was performed by calculating mean difference (MD) or odds ratio (OR) and 95% confidence intervals (95%CI). **Databases:** PubMed, MEDLINE, EMBASE, Cochrane. **Evidence:** Studies were assessed for quality using the Newcastle-Ottawa Scale (NOS, 0-10). Statistical significance was defined as p<0.05.	1. Quality of studies was high: NOS=8 (n=7) and NOS=9 (n=2). 2. In four studies (n=196), motor improvement was significantly greater in early surgery than late surgery (MD=3.30, 95%CI=0.82-5.79, p=0.009). 3. In seven studies (n=634), neurological improvement was significantly greater in early surgery than late surgery (OR=1.66, 95%CI=1.19-2.31, p=0.003). 4. In four studies (n=196), length of stay was significantly shorter in early surgery than late surgery (MD=-4.76, 95%CI=-9.19,-0.32, p=0.04). 5. In six studies (n=502), complication rate was significantly lower in early surgery than late surgery (OR=0.61, 95%CI=0.40-0.91, p=0.02). 6. In eight studies (n=650), mortality rate was not significantly different between groups (OR=1.39, 95%CI=0.51-3.75, p=0.52).
Van Middendorp et al. (2013) UK Meta-Analysis AMSTAR=7 N=22 studies	**Objective:** To compare outcomes is individuals with traumatic SCIwho had early surgery (<24 hr) with those who had late surgery (>24 hr). **Methods:** Comprehensive literature search of all English studies reporting on surgery only for individuals with acute traumatic SCI aged >14 yr. Data analysis was performed by calculating weighted mean difference (WMD) or odds ratio (OR) and 95% confidence intervals (95%CI). **Databases:** MEDLINE. **Evidence:** Studies were assessed for quality using a tailored scoring instrument (0-25) that was normalized into a quality index (0-1).	1. Total of 22 studies were found in systematic review, but only 18 were included in meta-analysis. 2. Quality scores were 0.08 (n=2), 0.12 (n=2), 0.16 (n=6), 0.20 (n=2), 0.24 (n=5), 0.28 (n=1), 0.32 (n=1), 0.40 (n=1), 0.52 (n=1), and 0.56 (n=1). 3. In seven studies (n=815), motor improvement was greater with early surgery than late surgery (WMD=4.73, 95%CI=-0.13-9.59). 4. In six studies (n=495), neurological improvement was greater with early surgery than late surgery (OR=1.74, 95%CI=1.04-2.91). 5. In six studies (n=1103), length of stay was shorter with early surgery than late surgery (WMD=-8.51, 95%CI=-12.78 -4.25). 6. In nine studies (n=1148), mortality was similar with both surgeries (OR=0.97, 95%CI=0.40-2.31). 7. In twelve studies, adverse events were similar with both surgeries (OR=0.86, 95%CI=0.69-1.07).
La Rosa et al. (2004) Italy Meta-Analysis AMSTAR=6 N=27 studies	**Objective:** To compare outcomes is individuals with traumatic SCI who had early surgery (<24 hr) with those who had late surgery (>24 hr) or conservative treatment.	1. Evidence was Class I (n=1), Class II (n=8), and Class III (n=18). 2. For early surgery, 11 studies with 409 individuals were found, with only 226 individuals considered in meta-analysis.

	Methods: Comprehensive literature search of all English studies reporting on surgery for acute traumatic SCI. Data analysis was performed by calculating improvement rate (>1 on Frankel scale) and 95% confidence intervals (95%CI). **Databases:** MEDLINE, Cochrane. **Evidence:** Levels of evidence were assigned based on class (I=RCTs, II=prospective, III=retrospective, IV=case reports). Statistical significance was defined as $p<0.05$.	3. For early surgery, improvement rate was 42% (95%CI=33.1-50.8) for complete deficit and 89.7% (95%CI=83.9-95.5) for incomplete. 4. For late surgery, 13 studies with 827 individuals were found, with 567 individuals considered in meta-analysis. 5. For late surgery, improvement rate was 8.3% (95%CI=4.8-11.8) for complete deficit and 58.5% (95%CI=53.1-63.9) for incomplete. 6. For no surgery, nine studies with 1335 individuals were found, with 890 individuals considered in meta-analysis. 7. For no surgery, improvement rate was 24.6% (95%CI=21-28.2) for complete deficit and 59.3% (95%CI=54-64.6) for incomplete. 8. Improvement rate was significantly different among all three groups for complete deficit ($\chi2=55.4$, $p<0.001$) and incomplete ($\chi2=37.6$, $p<0.001$). 9. Improvement rate was significantly greater with early surgery than late surgery in complete deficit ($\chi2=58.1$, $p<0.001$) and incomplete ($\chi2=35.1$, $p<0.001$). 10. Improvement rate was significantly greater with early surgery than no surgery in complete deficit ($\chi2=15$, $p<0.001$) and incomplete ($\chi2=33.7$, $p<0.001$).