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| **APPENDIX B: STUDY RESULTS FOR OUTCOME MEASURES OF INCLUDED STUDIES IN META-ANALYSIS** | | | | | | | | | | | | | | | | | | |
|  | **Abdallah et al. 201514** | **Bharti et al. 201531** | **Kaur et al. 201525** | **Kathuria et al. 201524** | **Kwon et al. 201527** | **Gurajala et al. 201523** | **Song et al. 201428\*** | **Das et al. 201419** | **Bengisun et al. 201417** | **Biswas et al. 201418** | **Zhang et al. 201430** | **Agarwal et al. 201415** | **Fritsch et al. 201421** | **Ammar et al. 201216** | **Swami et al. 201229** | **Kaygusuz et al. 201226** | **Gandhi et al. 201222** | **Esmaoglu et al. 201020** |
| **Sensory Block Duration** |  | S, D (p<0.0001) | NS (p=0.757) | S, D (p<0.0001) | S, D  (p<0.05) | S, D  (p<0.05) | S, D  (p<0.05) | S, D  (p<0.0001) |  | S, D  (p<0.01) | NS, D  (p<0.05) | S, D  (p<0.001) | S, D  (p<0.0001) | S, D  (p=0.002) | S, D  (p=0.001) | S, D  (p<0.01) | S, D  (p<0.0001) | S, D  (p<0.001) |
| **Motor Block Duration** | NS (p=0.03) | S, D (p<0.0001) | S, C (p<0.0001) | S, D (p<0.0001) | S, D  (p<0.05) | S, D  (p<0.05) | S, D  (p<0.05) | S, D  (p<0.015) | S, C  (p=0.032) | S, D  (p<0.01) | S, D  (p<0.01) | S, D  (p<0.001) | S, D  (p<0.0001) | S, D  (p=0.002) | S, D  (p=0.001) | S, D  (p<0.01) | S, D  (p<0.001) | S, D (p<0.001) |
| **Time of Sensory Block Onset** |  | NS (p=0.129) | S, D (p=0.04) | S, D  (p<0.0001) | S, D  (p<0.05) | NS  P=0.175 |  | NS (p<0.70) | NS  (p=0.375) |  | -No significant difference reported (no reported p-value) | S, D  (p<0.001) | S, D  (p=0.04) | S, D  (p=0.003) | NS  (p=0.083) | S, D  (p<0.05) | S, D  (p<0.0001) | S, D (p<0.001) |
| **Time of Motor Block Onset** |  | S, D (p<0.0001) | S, D (p=0.03) | S, D  (p<0.0001) | S, D  (p<0.05) | S, D  (p<0.05) |  | NS (p<0.40) |  |  | -No significant difference reported (no reported p-value) | S, D  (p<0.001) | S, D  (p=0.02) | S, D  (p=0.002) | NS  (p=0.162) | -No significant difference reported (no reported p-value) | S, C  (p<0.0001) | S, D (p<0.001) |
| **Duration of Analgesia** | S, D (p<0.001) | S, D (p<0.0001) | S, D (p<0.0001) | S, D  (p<0.0001) |  | S, D  (p<0.05) | S, D (p<0.05) |  |  | S, D  (p<0.05) |  | S, D  (p<0.001) | S, D (p=0.0001) | S, D  (p=0.002) | S, D  (p=0.001) | S, D (p<0.05) | S, D  (p<0.001) | S, D  (p=0.049) |
| **Analgesic Consumption at 24 hours** | NS (p=0.326) | S, D (p<0.0001) | NS (p=0.059) | S, D (p=0.001) |  |  |  | S, D (<0.01) | S, D (p=0.01) |  |  |  | NS  (p=0.39) | S, D (p=0.005) |  |  |  |  |
| **Post-Operative Pain at 24 hours** | NS (p=0.87) |  |  |  |  |  |  |  | S, D  (p=0.004) |  |  |  | NS (p=0.38) | S, D (p<0.05) |  |  |  |  |
| **Adverse Events** | -no significant difference in intraoperative bradycardia (p=0.27) and hypotension (p=0.22)  -no significant difference in neurological adverse events at 7 days (p=0.15), 14 days (p=0.62), and 3 months (p=0.66) follow-up | -no episodes of hypotension or bradycardia reported in either group  -no episodes of post-operative dizziness or nausea and vomiting in both groups  -no neurological deficit observed in any patient receiving D at 7 day follow-up | -two episodes of bradycardia with D; however, treatment was not required | -no episodes of bradycardia with D reported  -two episodes of hypotension with D which was treated with mephentermine  -skin rash reported in one patient with D which was treated with pheniramine maleate  -no episodes of nausea/vomiting or other side effects reported  -no neurological deficits reported | -seven episodes of bradycardia; however, treatment only needed in one patient | -two patients in each group had bradycardia  -transient hypotension seen in three patients in D group which was treated with mephentermine  -no significant difference in nausea/vomiting  -no incidence of persistent paresthesia or residual weakness in any patient before hospital discharge |  | -four patients suffered from bradycardia with D, none with control (p=0.04)  -five patients suffered from Horner Syndrome with D, two with control (p=0.12)  -four patients suffered from pneumothorax with D, two with control (p=0.39) | -no bradycardia or hypotension observed in either group | -no nausea, vomiting, hypotension, and hypoxemia overserved in either group | -eight episodes of bradycardia observed with D; however, four treated with atropine (p<0.01)  -two episodes of hypertension observed with D (p<0.01) | -one episode of intraoperative bradycardia with D which was treated with atropine  -no other side effects reported (hypotension, nausea, vomiting, hypoxemia, pruritus, or urinary retention) | -no significant difference in incidence of bradycardia  -no significant differences in hemodynamic management reported  -no differences between the two groups for other adverse events (nausea, vomiting, changes in appetite, confusion, fatigue, dizziness, pruritus, dry mouth or headaches)  -no significant differences in arm/hand weakness (p=1.0), sensory symptoms in the hands (p=0.639), or sensory symptoms in the arm (p=0.639) at *7-day* follow-up  -no significant differences in arm/hand weakness (p=0.357), sensory symptoms in the hands (p=0.0959), or sensory symptoms in the arm (p=0.53) at *28-day* follow-up | -no episodes of bradycardia or hypotension reported  -seven episodes of nausea reported with D, four with control (p=0.32)  -two episodes of pruritus with D, none with control (p=0.15)  -four episodes of dizziness with D, one with control (p=0.16)  -four episodes of somnolence with D, zero with control (p=0.04) | -no side effects (nausea, vomiting, dry mouth) reported during first 24 hours | -no episodes of bradycardia, hypotension, or hypoxemia reported  -no nausea/vomiting reported in either group | -two episodes of bradycardia and two episodes of hypotension reported with D | -seven episodes of bradycardia observed with D which were all treated with atropine  -no other side effects reported (nausea, vomiting, hypotension, and hypoxemia) |

NS=not significant; S=significant; D=favors DEX, C=favors control

\*Study by Song et al. 2014 did report block onset time; however, they did not stratify data based on sensory and motor block onset times.

* Reported p values from included studies are listed. If a p-value was not reported but the study made mention of “significance” or “non-significance” this is also listed. Data is not included if a study reported an outcome measure but did make any comment on significance.
* For all duration outcomes, a significant difference favoring C/D represents a gain in time for the respective group. For all onset outcomes, a significant difference favoring C/D represents a decrease in time for the respective group. For analgesic consumption, a significant difference favoring C/D represents a decrease in analgesic use for the respective group. For post-operative pain, a significance difference favoring C/D represents an improved pain score with the respective group.