

Table S1. The details of the search strategy for each database:

PubMed

Strategy: (Melatonin OR pineal hormone OR NSC-113928) AND (Cesarean section OR Caesarean Section OR Abdominal Deliveries OR Abdominal delivery OR C-Section OR C Section OR Postcesarean Section)

Results: 29

Scopus

Strategy: (Melatonin OR "pineal hormone" OR "NSC-113928") AND ("Cesarean section" OR "Caesarean Section" OR "Abdominal Deliveries" OR "Abdominal delivery" OR "C-Section" OR "C Section" OR "Postcesarean Section")

Results: 67

Cochrane

Strategy: : (Melatonin OR pineal hormone OR NSC-113928) AND (Cesarean section OR Caesarean Section OR Abdominal Deliveries OR Abdominal delivery OR C-Section OR C Section OR Postcesarean Section)

Results: 26

WOS

Strategy: (Melatonin OR pineal hormone OR NSC-113928) AND (Cesarean section OR Caesarean Section OR Abdominal Deliveries OR Abdominal delivery OR C-Section OR C Section OR Postcesarean Section)

Results: 260

Table S2. Summary of GRADE rating.

Outcome	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations ^a	Overall certainty of evidence
Hemoglobin (mg/dl)	Serious ^b	Serious ^c	Not serious	Serious ^d	Not serious	⊕○○○ Very low
Heart rate (bpm)	Serious ^b	Serious ^c	Not serious	Serious ^d	Not serious	⊕○○○ Very low
Mean arterial pressure	Serious ^b	Serious ^c	Not serious	Serious ^d	Not serious	⊕○○○ Very low
Pain score (10-point)	Serious ^b	Serious ^c	Not serious	Serious ^d	Not serious	⊕○○○ Very low
Time to first analgesic request	Serious ^b	Serious ^c	Not serious	Serious ^d	Not serious	⊕○○○ Very low
Total blood loss	Serious ^b	Serious ^c	Not serious	Serious ^d	Not serious	⊕○○○ Very low
Adverse events	Serious ^b	Serious ^c	Not serious	Serious ^d	Not serious	⊕○○○ Very low

^a Other considerations are publication bias, large effect, dose response, and plausible confounding factors.

^b As the included studies showed higher risk of bias especially with randomization process besides other bias.

^c As the outcome had significant heterogeneity.

^d As the analysis included small number of patients with wide confidence interval.

Very low quality— Any estimate of effect is very uncertain.

2 Figures:

Figure S1: Forest plot comparing each dose of the melatonin and the placebo regarding hemoglobin level:

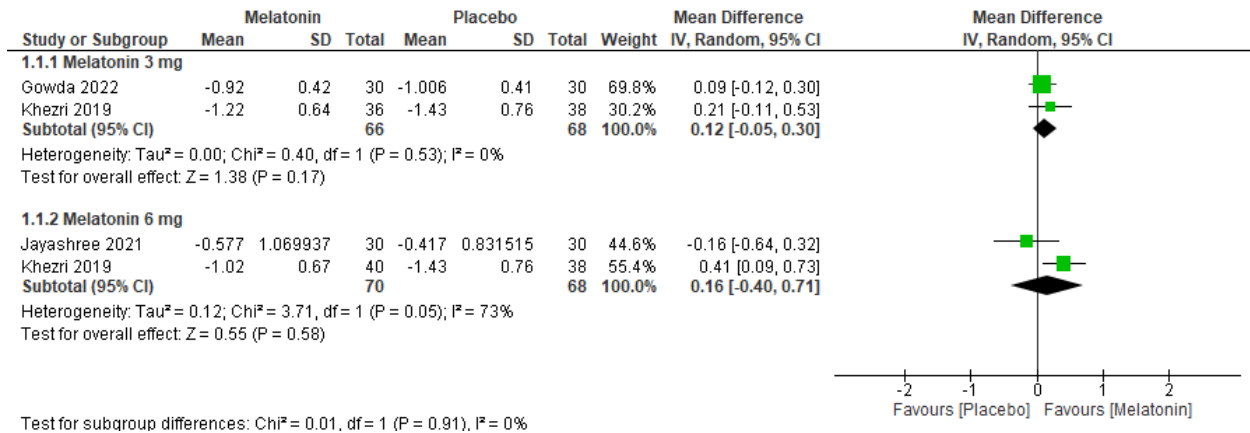


Figure S2: Forest plot comparing each dose of the melatonin and the placebo regarding heart rate:

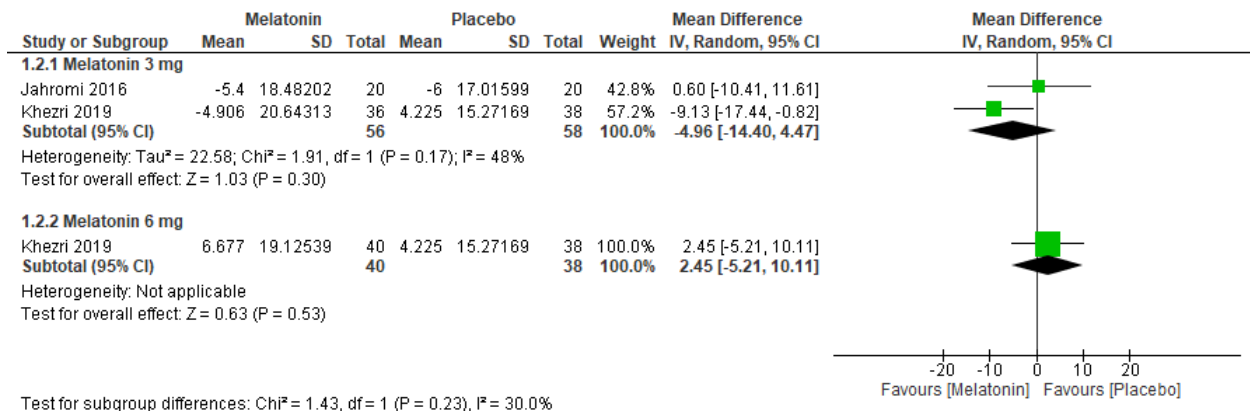


Figure S3: Forest plot comparing each dose of the melatonin and the placebo regarding mean arterial pressure:

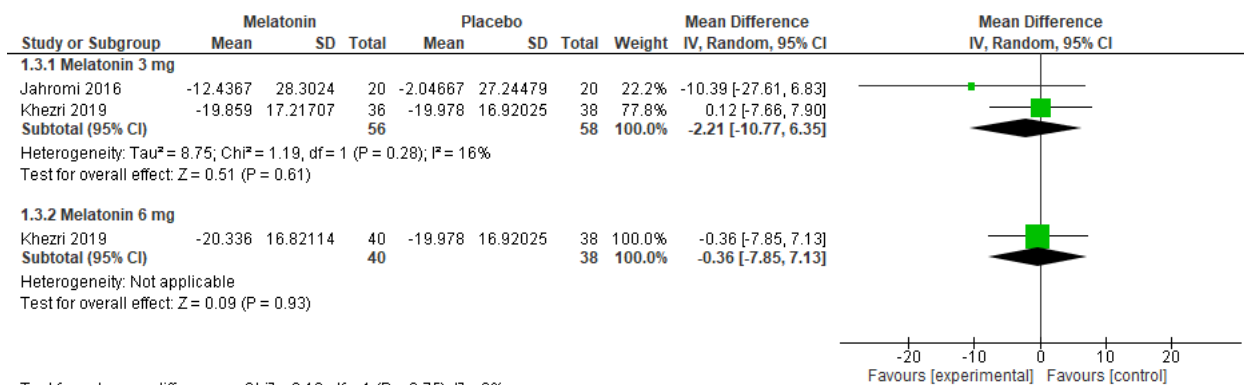


Figure S4: Forest plot comparing each dose of the melatonin and the placebo regarding the pain score:

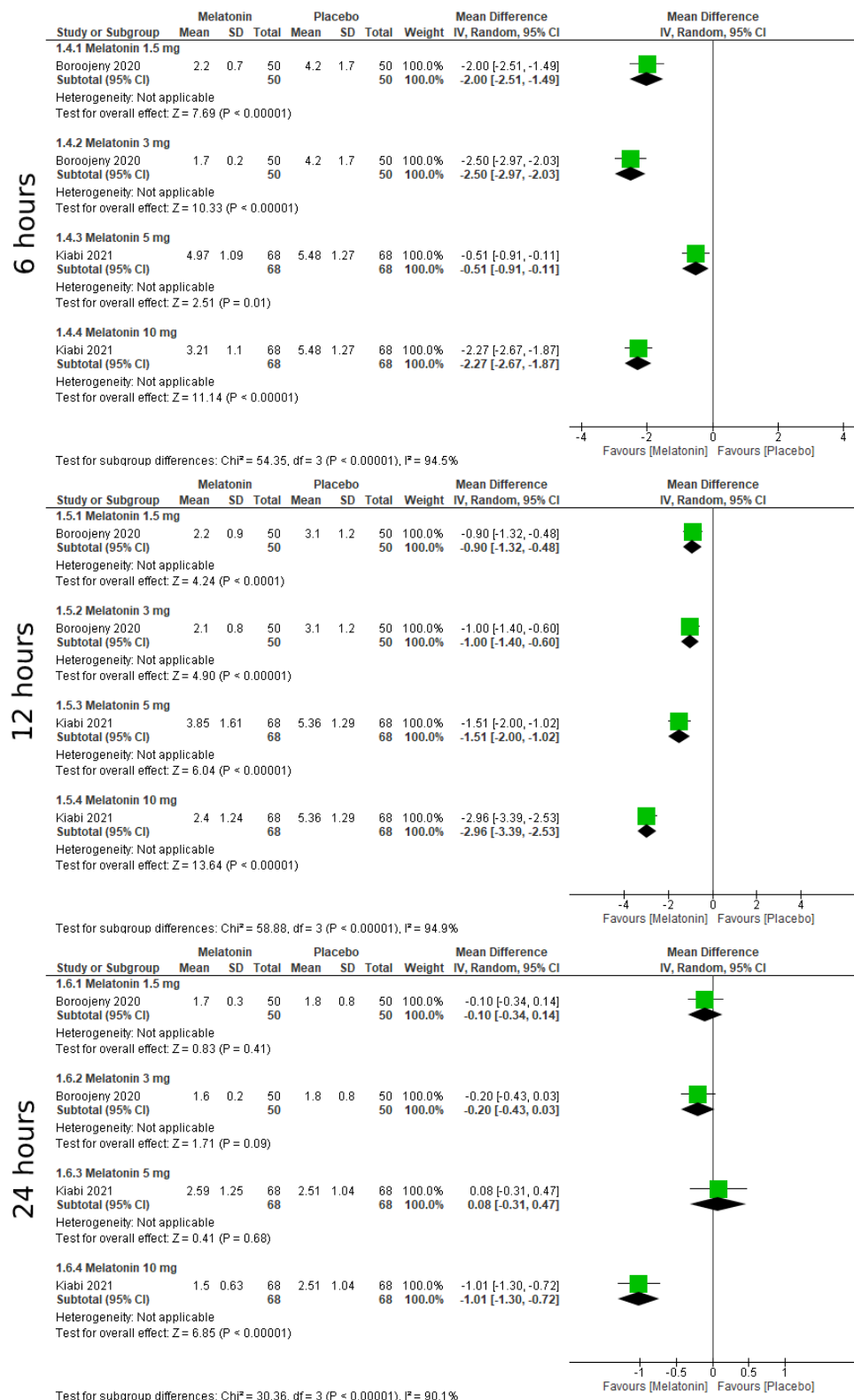


Figure S5: Forest plot comparing each dose of the melatonin and the placebo regarding the time to first analgesic request:

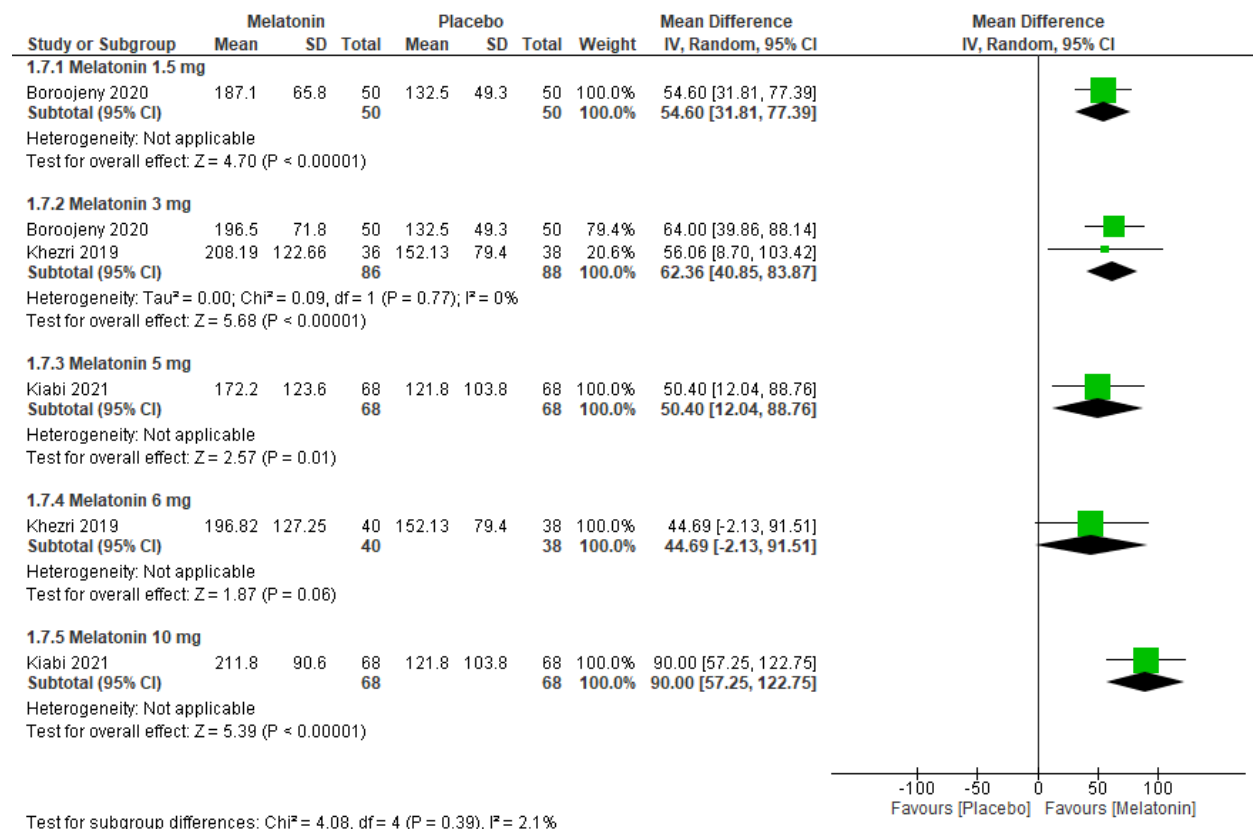


Figure S6: Forest plot comparing each dose of the melatonin and the placebo regarding the total blood loss:

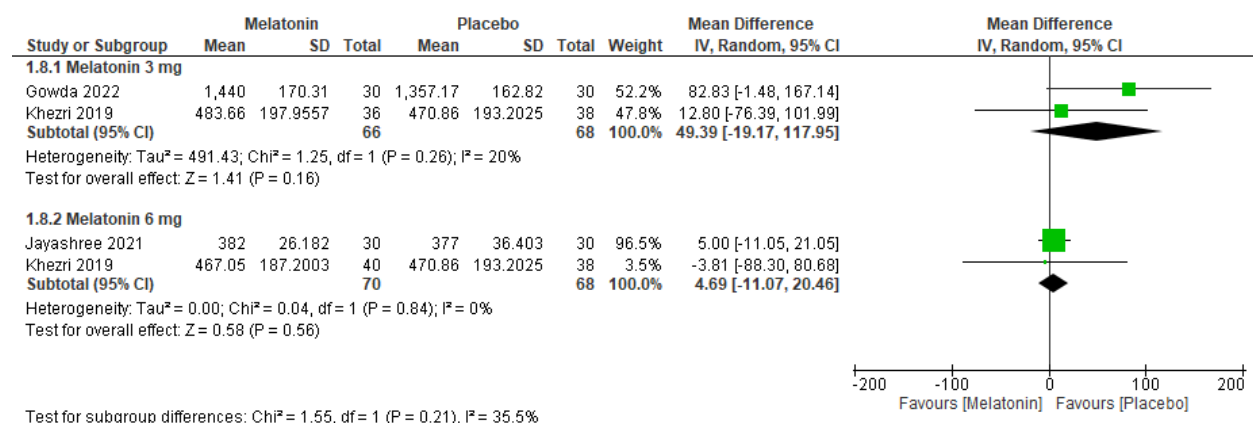


Figure S7: Forest plot comparing each dose of the melatonin and the placebo regarding the adverse events:

