

Supplementary Table 1. Search strategy

PubMed (Filter:2008–April 2023)	((“palonosetron”[MeSH Terms] OR “palonosetron”[All Fields] OR “palonosetron s”[All Fields]) AND (“ondansetron”[MeSH Terms] OR “ondansetron”[All Fields] OR “ondansetrone”[All Fields])) AND (2008:2023[pdat])	142
Google Scholar (Filter:2008–April 2023)	Palonosetron AND Ondansetron	4,740
Semantic Scholar (Filter:2008–April 2023)	Palonosetron and Ondansetron in laparoscopic surgery	46
Cochrane (Filter:2008–April 2023)	Palonosetron AND Ondansetron	153

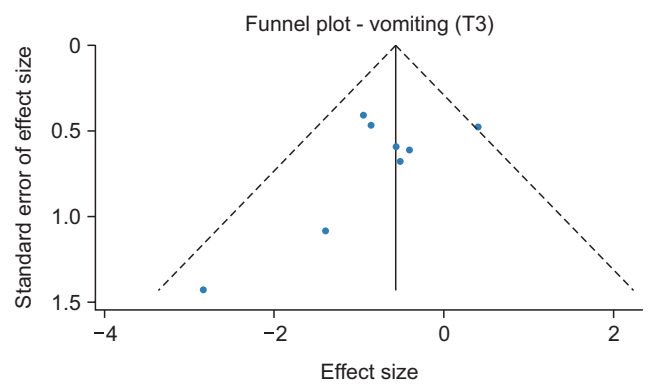
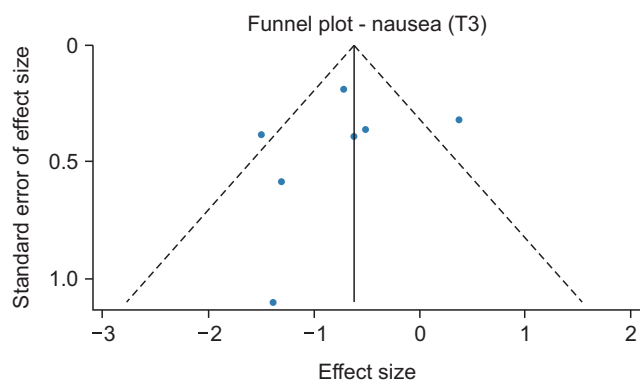
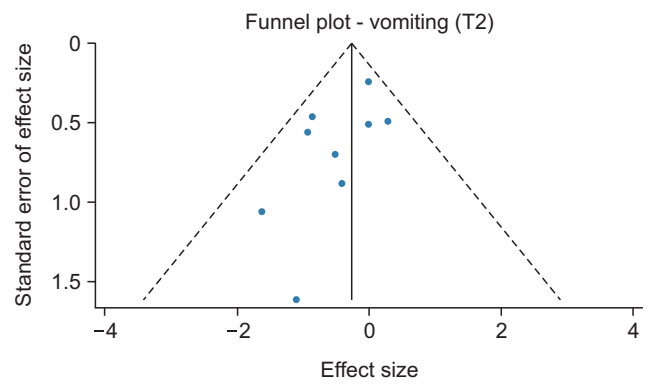
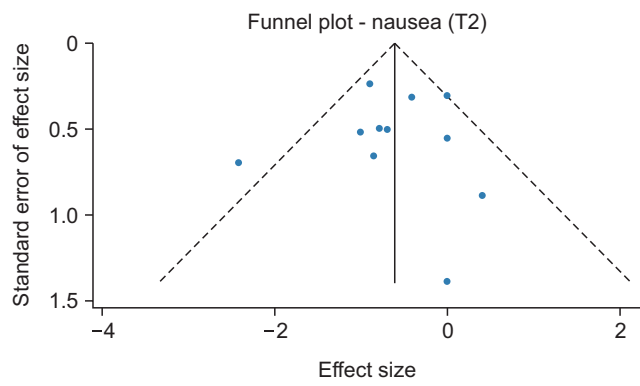
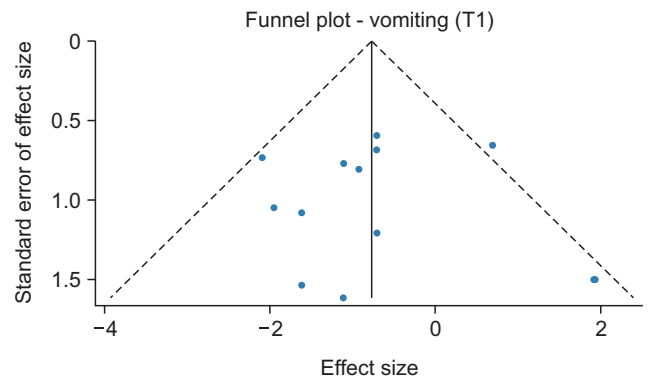
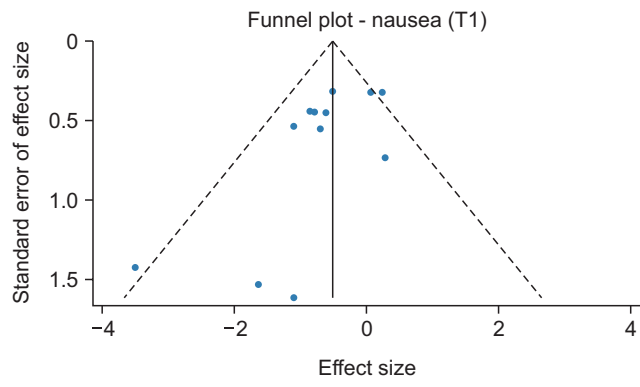
Supplementary Table 2. Incidence of nausea and vomiting

No.	Study	Palonosetron						Ondansetron							
		No. of participants			Vomiting			No. of participants			Vomiting				
		T1	T2	T3	T1	T2	T3	T1	T2	T3	T1	T2	T3		
1	Park et al. [17]	45	4	5	9	3	2	4	45	12	10	15	0	3	6
2	Swaika et al. [19]	29	NA	NA	NA	6/29	6/29	3/29	29	NA	NA	NA	3	6	5
3	Bajwa et al. [18]	30	0	1	NA	0	0	NA	30	1	1	NA	1	1	NA
4	Kim et al. [21]	36	0	2	6	NA	NA	NA	35	2	22	26	NA	NA	NA
5	Kim et al. [20]	50	6	NA	NA	1	NA	NA	50	13	NA	NA	2	NA	NA
6	Joshi et al. [23]	50	6	3	NA	0	0	NA	50	14	7	NA	2	1	NA
7	Sureshkumar et al. [25]	50	6	5	NA	2	3	NA	50	14	11	NA	5	5	NA
8	Kuragayala et al. [27]	25	NA	NA	3	NA	NA	0	25	NA	NA	11	NA	NA	8
9	Kumar et al. [28]	50	4	3	1	1	0	4	50	3	2	4	7	1	7
10	Davis et al. [29]	65	12	16	22	1	4	7	65	20	39	45	5	10	18
11	Carvalho Braga et al. [30]	41	6	14	16	2	8	9	41	11	14	11	5	6	6
12	Verma et al. [31]	30	2	4	7	2	1	1	30	10	11	13	6	5	4
13	Davolos et al. [33]	106	18	14	NA	4	25	NA	106	14	21	NA	8	25	NA
14	Debnath et al. [34]	90	0	6	0	2	6	6	90	16	6	0	16	14	14
15	Chauhan et al. [35]	30	4	0	0	2	0	0	30	8	0	0	6	0	0
16	Yadav et al. [36]	45	4	5	9	3	2	4	45	12	10	15	0	3	6
17	Balyan et al. [37]	65	15	NA	NA	3	NA	NA	65	14	NA	NA	6	NA	NA

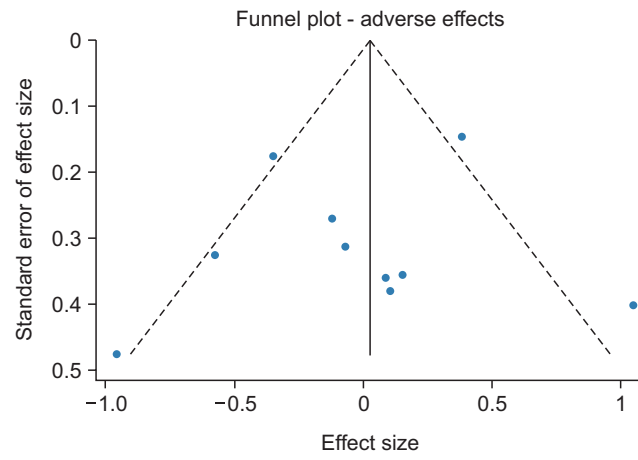
T1, 0–2 hours; T2, 2–6 hours; T3, 6–24 hours; NA, not available.

Supplementary Table 3. Incidence of adverse effects

No.	Study	Headache	Dizziness	Drowsiness	Constipation	Other adverse effects	Total
Palonosetron							
1	Park et al. [17]	3/45	5/45	-	3/45	Myalgia: 1/45	12/45
2	Bajwa et al. [18]	2/30	1/30	-	1/30	Pain: 3/30, anxiety: 1/30, dry mouth: 1/30	9/30
3	Kim et al. [20]	7/50	11/50	6/50	-		24/50
4	Kim et al. [21]	2/36	4/36	-	-	Itching: 3/36, fever: 2/36, chest tightness: 1/36	12/36
5	Gupta et al. [22]	3/40	2/40	-	-	-	5/40
6	Sureshkumar et al. [25]	4/50	6/50	-	4/50	-	14/50
7	Singh et al. [26]	6/45	4/45	3/45	3/45	-	16/45
8	Davis et al. [29]	20/65	-	-	-	-	20/65
9	Verma et al. [31]	2/30	4/30	-	3/30	Myalgia: 1/30	10/30
10	Yadav et al. [36]	3/45	5/45	-	3/45	Myalgia: 1/45	12/45
11	Balyan et al. [37]	8/65	8/65	17/65	14/65	-	47/65
Ondansetron							
1	Park et al. [17]	4/45	5/45	-	2/45	-	11/45
2	Bajwa et al. [18]	6/30	2/30	-	2/30	Myalgia: 2/30, pain: 2/30, anxiety: 2/30	16/30
3	Kim et al. [20]	14/50	15/50	5/50	-	-	34/50
4	Kim et al. [21]	3/36	3/36	-	-	Itching: 2/36, fever: 1/36, chest tightness: 1/36	10/36
5	Gupta et al. [22]	8/40	5/40	-	-	-	13/40
6	Sureshkumar et al. [25]	6/50	6/50	-	3/50	-	15/50
7	Singh et al. [26]	5/45	6/45	5/45	2/45		18/45
8	Davis et al. [29]	7/65	-	-	-	-	7/65
9	Verma et al. [31]	3/30	4/30	-	2/30	-	9/30
10	Yadav et al. [36]	4/45	5/45	-	2/45	-	11/45
11	Balyan et al. [37]	10/65	4/65	14/65	4/65	-	32/65



Supplementary Fig. 1. Funnel plots of efficacy, T1, 0–2 hours; T2, 2–6 hours; T3, 6–24 hours.



Supplementary Fig. 2. Funnel plots of safety.