

Tab. 4. Comparison of CT and BT changes between groups

Time	Group 1 (n = 20)	Group 2 (n = 20)	p-value
	Mean ± SD	Mean ± SD	
Delta CT (minutes)			
2 hours pre-24 hours post	0.00 ± 0.00	0.05 ± 0.13	0.429
2 hours pre-48 hours post	0.05 ± 0.13	0.13 ± 0.22	0.265
24 hours post-48 hours post	0.05 ± 0.13	0.09 ± 0.17	0.583
Delta BT (minutes)			
2 hours pre-24 hours post	0.03 ± 0.11	0.09 ± 0.21	0.201
2 hours pre-48 hours post	0.05 ± 0.15	0.24 ± 0.24	0.021
24 hours post-48 hours post	0.03 ± 0.16	0.14 ± 0.29	0.157

Mann-Whitney test, *p* value < 0.05 is significant

postoperatively, the mean CT increased by 0.05 in Group 1 and by 0.13 in Group 2; however, this difference was not statistically significant ($p > 0.05$). Regarding changes in BT, at 24 hours postoperatively, BT increased by 0.03 in Group 1 and by 0.09 in Group 2, with no significant difference between the groups ($p > 0.05$).

However, the comparison of BT changes between 2 hours preoperatively and 48 hours postoperatively showed a significant difference between Groups 1 and 2 ($p < 0.05$), with mean increases of 0.05 and 0.24, respectively. No significant difference was observed in BT changes between 24 and 48 hours postoperatively in either group ($p > 0.05$).

The trends in CT and BT for both groups are illustrated in **Figures 3 and 4**. CT remained relatively stable in the ibuprofen group, whereas a slight increase was observed in the ketorolac group. BT showed minimal changes in the ibuprofen group, but increased more notably in the ketorolac group, particularly at 48 hours postoperatively.

3. Interleukin-6 Levels

The results presented in **Table 5** indicate no significant difference in the mean IL-6 levels at 2 hours preoperatively between Group 1 and Group 2 ($p > 0.05$), indicating comparable baseline IL-6 levels in both groups. However, IL-6 levels differed significantly between the two groups at 6 hours and 24 hours postoperatively ($p < 0.05$). The comparison of IL-6 levels between the groups over the study time points is illustrated in **Figure 3**. IL-6 levels increased from 2 hours preoperatively to 6 hours postoperatively, followed by a decline at 24 hours postoperatively in both groups.

Discussion

This study compares the analgesic efficacy, effects on coagulation profiles, and inflammatory responses of the ibuprofen-paracetamol combination versus the ketorolac-paracetamol combination in patients

undergoing gynecological surgery. The findings demonstrate that both analgesic combinations paracetamol-ibuprofen and paracetamol-ketorolac are effective in managing postoperative gynecological pain, with no significant differences observed in NRS scores. These results are consistent with prior research by Rahim et al. (2023) which similarly reported no significant differences in pain levels between the paracetamol-ibuprofen and paracetamol-ketorolac combinations following functional endoscopic sinus surgery [11]. This supports the principle of multimodal analgesia, wherein drug combinations may produce synergistic effects in reducing pain and opioid consumption.

Fig. 1. CT graph in both groups

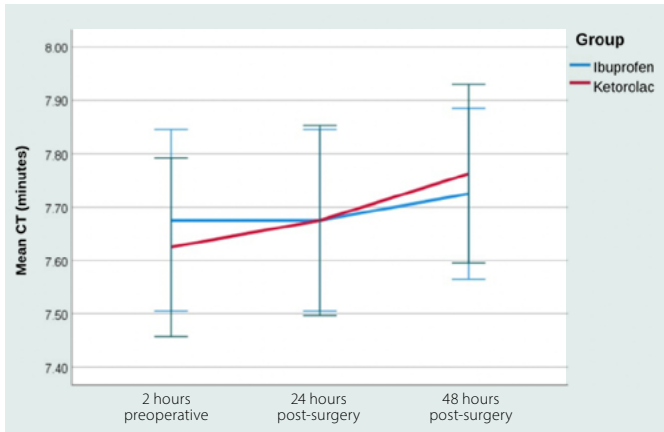


Fig. 2. BT graph in both groups

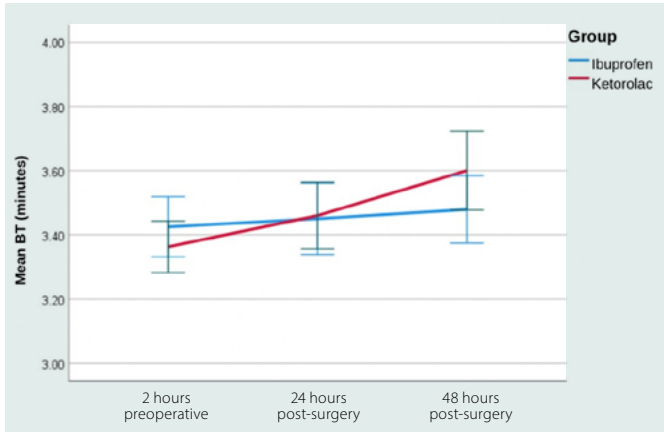
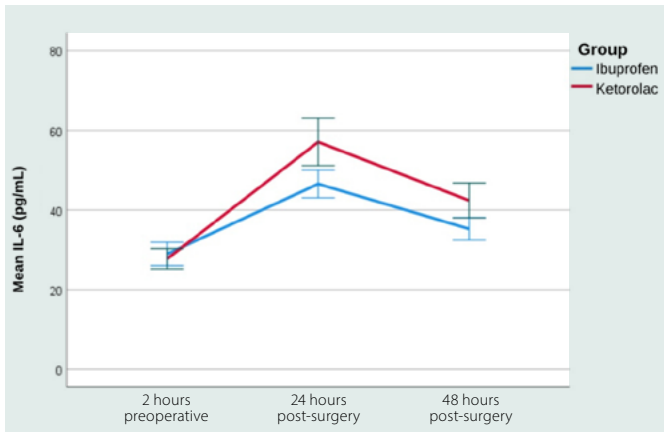


Fig. 3. IL-6 levels in both groups



Tab. 5. Comparison of IL-6 levels between groups

Time	IL-6 (pg/mL)		p-value
	Group 1 (n = 20)	Group 2 (n = 20)	
	Mean ± SD	Mean ± SD	
2 hours preoperatively	28.96 ± 6.30	27.76 ± 5.47	0.522
6 hours post-surgery	46.55 ± 7.46	57.09 ± 12.72	0.003
24 hours post-surgery	35.26 ± 5.97	42.39 ± 9.40	0.007

Mann-Whitney test, p value < 0.05 is significant.