



Comparison of perioperative outcomes of different routes of hysterectomies - Total Abdominal, Vaginal & Laparoscopic, in a tertiary care hospital in Karachi, Pakistan

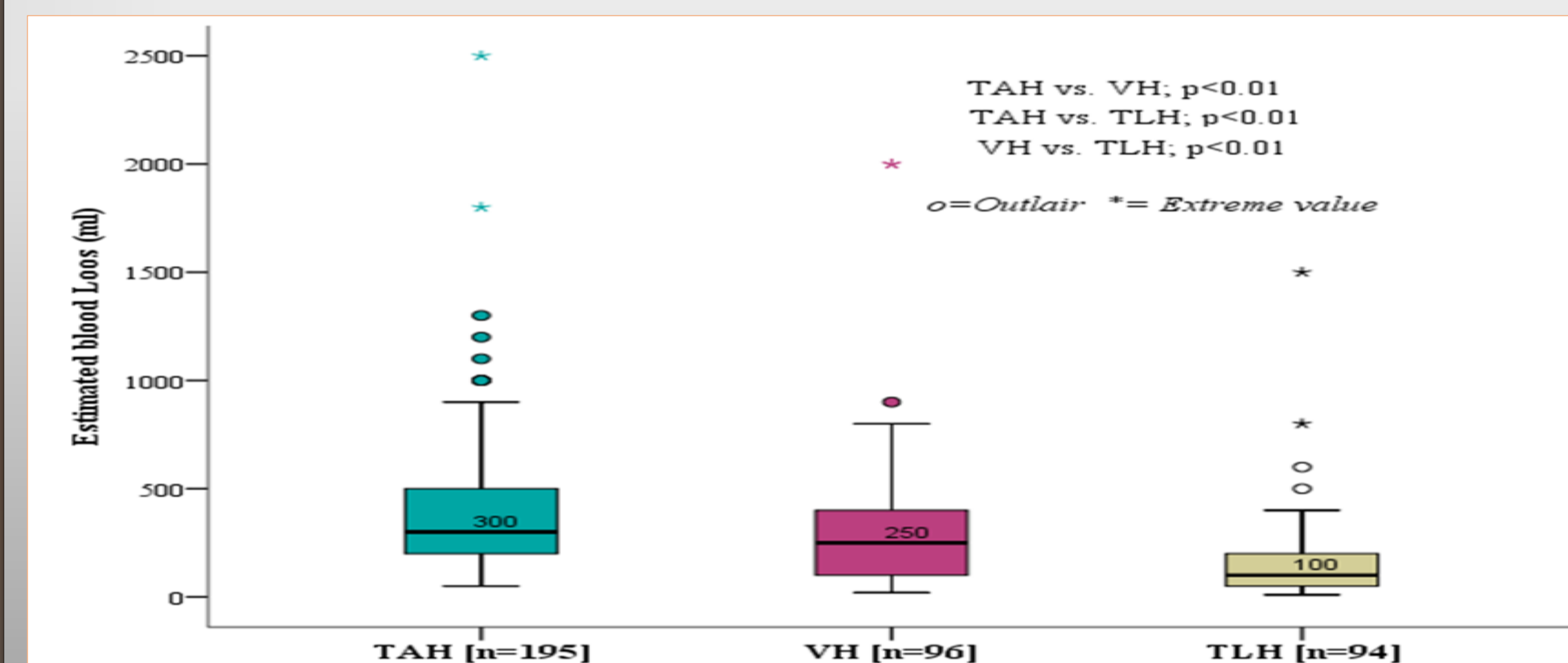
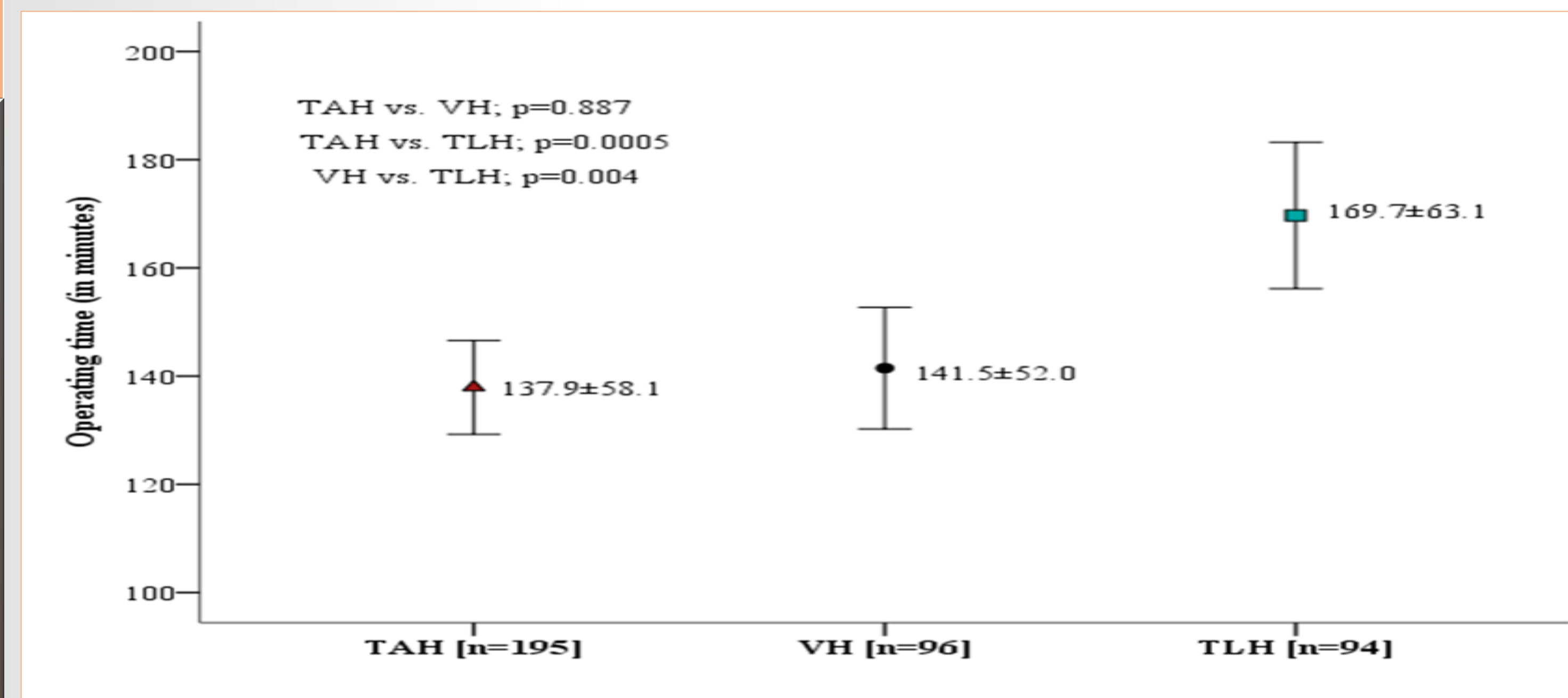
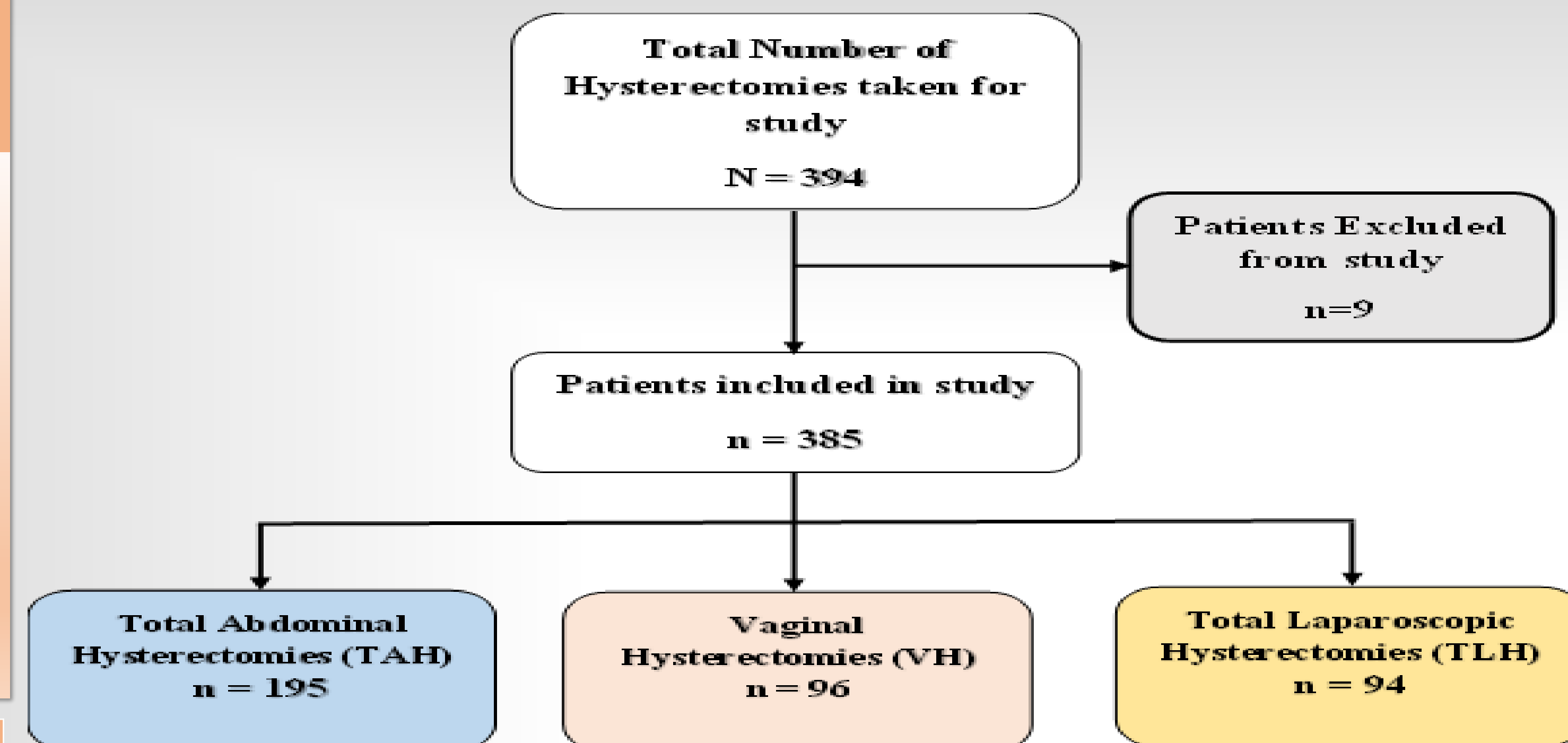
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Objectives

The aim was to compare the perioperative findings among women undergoing hysterectomy by Abdominal (TAH), Vaginal (VH) & Laparoscopic (TLH) routes at a private tertiary care center in Pakistan over the past 5 years.

Methods

Medical record review of 385 patients who underwent hysterectomy for benign conditions were reviewed and analyzed, out of which 195(50.6%) underwent TAH, 96 (24.9%) VH and 94 (24.4%) were operated laparoscopically. Patients with uncontrolled medical comorbid, history of 2 or more abdominal surgeries and uterine size of more than 14 weeks were excluded from the study. Benign conditions were confirmed by final histopathological diagnosis. The variables used to compare the outcomes were length of stay in the hospital (days), operating time (in minutes), estimated blood loss during surgery (ml), intraoperative complications like bowel or urinary tract injury, conversion to laparotomy in cases of VH or TLH. Post-operative complications like fever, urinary tract infection, wound infection, or venous thromboembolism within 30 days post-surgery were also noted.



Outcomes	TAH (n= 195)	VH (n= 96)	TLH (n= 94)	P-Value
Operating time (In minutes)	137.9 ± 58.1†	141.5 ± 52.0‡	169.7 ± 63.1	0.00005
Length of stay in hospital (days)	4.8 ± 1.0*†	4.3 ± 0.7‡	3.9 ± 0.8	0.0005
Post-operative hemoglobin	9.9 ± 1.3*†	10.4 ± 1.2	10.7 ± 1.2	0.0005
Time to pass flatus (hours)	45.6 ± 16.9: †	44.7 ± 14.6: ‡	37.5 ± 14.2	0.001
Time to mobility/out-of-bed activity (hours)	29.5 ± 11.6	27.2 ± 8.2	30.5 ± 10.7	0.120
Complications				
Urinary tract injury	2 (1.0%)	2 (2.1%)	0 (0%)	0.367
Laparotomy in cases of VH or TLH	-	9 (9.4%)	3 (3.2%)	0.080
Fever	5 (2.6%)	2 (2.1%)	0 (0%)	0.303
Urinary tract infection	2 (1.0%)	1 (1.0%)	0 (0%)	0.614
Wound infection	2 (1.0%)	0 (0%)	0 (0%)	0.376
Venous thromboembolism	0 (0%)	0 (0%)	1 (1.1%)	0.212
Bowel injury	0 (0%)	0 (0%)	0 (0%)	NA

Study design

A 5-year cross-sectional survey was conducted at the Aga Khan University Hospital from January 2015 – December 2020 to compare perioperative outcomes of the different routes of hysterectomies.

Results

Data analysis revealed significant difference between the mean hospital stay of patients with TAH having the highest mean stay in days. [TAH= 4.8±1.01, VH= 4.4 ±0.7 and TLH=3.9± 0.82 in days; p<0.01] TLH took comparatively significantly longer operating time than TAH (p=0.0005) and VH groups (p=0.004) however, median estimated blood loss was significantly lower in women who underwent TLH as compare to TAH [Median (25th -75th percentile); 100(50-200)] vs. 300(200-500); p <0.01] and VH [100(50-200)] vs. 250[100-400]; p <0.01] Patients undergoing TAH also had a slightly lower post-operative hemoglobin values compared to VH and TLH. The incidence of post-operative complications was less than 3% and these were observed in women underwent TAH.

Conclusion

VH and TLH have shown to have lesser complications and hospitalization days as compared to TAH, making these 2 methods superior to the latter. Informed decision making by patient and surgeon's training together can account for choosing the best method of hysterectomy needed for the patient.