

## **Poster Presentation**

AB006. Less postoperative pain in hybrid-NOTES transvaginal cholecystectomy than in the conventional laparoscopic procedure by numeric rating scale: a single institute matched-cohort study

Akkaraphorn Deeprasertvit, Wirada Wandee

Department of Surgery, Police General Hospital, Bangkok, Thailand

Background: Conventional laparoscopic cholecystectomy (CLC) is considered a gold standard procedure for benign gallbladder disease. This statement is currently under a challenge of NOTES which offers less surgical scar. The feasibility of hybrid NOTES cholecystectomy was reported on several western studies yet there was no major study on Asian population. This study was designed to compare short and long term outcomes between hybrid NOTES transvaginal cholecystectomy (TVC) and conventional laparoscopic cholecystectomy (CLC) performed in Thai patients.

Methods: A prospective matched-cohort study compared the author's first 15 hybrid TVC with 45 CLC from the corresponding period matched in term of age, body mass index, and American Society of Anesthesiology classification. Subjects were indicated for elective cholecystectomy due to benign gallbladder disease. For TVC group, transumbilical incision was done along with posterior vaginal fornix for instruments insertion. Both groups were assessed intraoperatively for the operative time, immediate complication including conversion rate. Pain assessment was evaluated using numeric rating scale (NRS) at recovery room and 8 am each day. Other parameters include length of hospital stay and complications upon scheduled follow up at 14 days and 3 months after surgery. Patient's gynecologic status was evaluated at 1 month.

Results: There was no conversion to open cholecystectomy or change in assigned procedure. One patient from TVC group needed additional port at right subcostal area due to difficulty maneuvering gallbladder. There was no difference in pain score on first post-operative day (95% CI: –1 to 1) while the score was higher on second and third post-operative day in CLC group (95% CI: 0 and 0 to 1.9). Surgical time was longer in TVC group with mean of 105.7 min compared to 69.6 min for CLC group (95% CI: 21.11 to 51.20, P=0.0). There was no significant difference for length of hospital stay, TVC mean length was 2.73 days and CLC mean length was 2.28 days (95% CI: –0.316 to 1.205, P=0.247).

**Conclusions:** Hybrid NOTES approaches is a safe procedure for benign gallbladder disease. Even the operative time was longer than the CLC, it did not lengthen patient's hospital course. Hybrid NOTES causes significantly less pain on 2<sup>nd</sup> and 3<sup>rd</sup> operative day. Patients show great satisfaction, clinical and aesthetic wise.

**Keywords:** Hybrid-NOTES transvaginal cholecystectomy; postoperative pain; numeric rating scale

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