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Clampless Abdominal Hysterectomy Vs Total Abdominal Hysterectomy Using Clamps

Medical Science

KEYWORDS : Abdominal hysterectomy. Surgical hemorrhage. Surgical time . Uterus, Clampless abdominal excision.

Dr.Dileep P. Javadekar — Associate Professor, Ob.Gyn.Department. BKLWalawalkar Rural Medical College, Dervan, Ratnagiri (M.S.)

Dr.Mrs.Sanjivani A. Deshpande — Professor, Ob.Gyn.Department. Bharati Medical College and Hospital, Sangli (M.S.)

ABSTRACT

Our objective was to judge reduction in surgical hemorrhage by a modification within the customary total abdominal hysterectomy technique(TAH), the clampless abdominal hysterectomy (CAH). Eligible patients were those with indications for abdominal hysterectomy. CAH is predicated on an easy tie-cut technique of the round ligaments, infundibulopelvic ligaments, and uterine vein and arteries, as compared with the total abdominal hysterectomy of clamp-clamp-cut-tie-tie. Variations between the groups were tested by unpaired t-tests. patients within the CAH group (n=41) showed considerably less surgical hemorrhage (233.1+- 210.0 vs. 453.5+-345.4 ml. p=0.04) and shorter surgical times (56.9+-26.1 vs. 125.0+-45.9 min. p=0.000002) than patients within the TAH (n=46) group. We conclude that CAH may be a helpful alternative for removing the uterus, considerably reducing each surgical haemorrhage and surgical time.

INTRODUCTION

Because some individuals won't settle for blood transfusions, that could be a limitation for surgical procedures, the aim of this study was to judge the reduction in surgical hemorrhage by a modification in simple abdominal hysterectomy technique, the clampless abdominal excision (CAH).

Abdominal hysterectomy is beyond question the surgical intervention most often performed by gynecologists worldwide (1,2). regarding ninety percent of hysterectomies are done to treat uterine fibroids, Dysfunctional bleeding, uterine prolapsed, and malignant diseases of the uterus (3). Though excision may also be performed vaginally or laparoscopically or by surgical incision, or by combined approach of those techniques, total abdominal hysterectomy (TAH), that is comparatively simple and safe, continues to be the foremost common surgical treatment (4) for removing the uterus in the presence of benign lesions and several other malignant diseases (3,5,6).

MATERIAL AND METHODS

With prior getting the subjects' informed consent, a cross-sectional pilot study comparison the TAH and CAH groups was applied from July 2015 to January 2016 in two hospitals viz. BKLWalawalkar Medical College Hospital, Ratnagiri (M.S.) and Bharati Medical College Hospital, Sangli simultaneously. Results of both places were compiled time to time for further statistical calculations.

Eligible patients (those with indications for abdominal hysterectomy) were at random allotted to the TAH and CAH groups. Before randomisation, patients were clinically evaluated and laboratory tested to see the presence of clinical contraindications for the surgical operation, that were exclusion criteria. Additionally, patients receiving chemotherapy and radiotherapy weren't included.

The primary trial finish point of this pilot study was reduction in surgical hemorrhage. Sample size was estimated based on a statistical considerations.

Eighty seven eligible patients were registered and at random allotted to the TAH and CAH groups for surgical intervention. Computer generated random numbers were used to assign participants to every intervention group. The ultimate distribution was forty six patients within the TAH group and forty one within the CAH group.

TAH was done consistent with the customary technique for abdominal hysterectomy (7). CAH was done as follows :

Access to the uterus in through a transverse incision of the abdominal wall, the same as the TAH technique. Anatomic parts of the uterus are identified, and two straight Kocher clamps are placed on the uterine cornua in the the way that involves the ovarian ligament, round ligament, oviduct, and also the ascendant portion of the uterine artery and venous channels. By traction on the uterus, the pedicle is finite, and with previous identification of the ureters, round ligaments on either side are tied in a direct approach (without clamping, using Number one Vicryl and square knots) and cut. The infundibulopelvic ligaments on either side are distally sutured and cut in a very direct approach. The anterior leaf of the broad ligament is incised on the bladder reflection to the midline from either side and also the bladder dissected off the lower uterine segment and cervix. Finally, the vein and arteries are identified, sutured and cut in a very direct manner. The second part of CAH, for vaginal and abdominal closure, is analogous to the customary technique employed in TAH (8).

Bleeding was measured by pre and postsurgical consideration of the gauzes and mops used and quantifying the whole blood aspirated.

Statistical analysis : The preplanned intention-to-treat analysis of the first study end point was done for all of the at random allotted participants. variations between the groups were assessed by two-tailed unpired Student t-test for comparison of normally distributed variables or chi-square test for unqualified variables.

RESULTS

Eighty seven patients who fulfilled the inclusion criteria were at random allotted, forty one within the CAH and forty seven within the TAH control group. None dropped out or had serious adverse events as a result of the surgical intervention. All the patients in each groups statisfactorily completed the study and were enclosed within the data analysis.

The overall average age was 44.0+-9.6 years. There was no significant age difference (p=0.26) between the ladies within the CAH and TAH teams (46.7+-14.4 vs. 43.4+-10.6 years respectively).

Indications for hysterectomy within the group under study were uterine leiomyomas (37.93%), Cervical-uterine cancer in situ (8.05%), abnormal uterine hemorrhage (50.57%),endometrial

carcinoma (3.4%) . There have been no vital variations within the uterine size (p=0.34) between the CAH (695.3+-745 ccm) and also the TAH (493.0+-427.3cmm) groups.

Women within the CAH group had considerably less operative blood loss (233.1+- 210.0 vs. 453.5+-345.4 ml. p=0.04) and lower operative times (56.9+-26.1 vs. 125.0+-45.9 min. p=0.000002) and anaesthesia times (83.3+-25.6 vs. 154.8+-43.4 min., p=0.000002) than patients within the TAH group, whereas hospital stay was similar (2.6+-0.8 vs. 2.7+-0.7 days, p=0.56).

No patient from either TAH group or the CAH group had post-surgical hemorrhage that needed reoperation.

DISCUSSION

The projected modification within the surgical technique for removing a uterus simplifies the customary abdominal hysterectomy procedure. For cutting the round ligament, infundibulopelvic ligament, and fallopian tube package, the old technique of TAH involves the subsequent steps : proximal clamp, distal clamp, cut, proximal suture, and distal suture. CAH simplifies this to distal suture and cut.

In 1950 Aldridge and Meredith (9) represented a excision technique that eliminated the utilization of clamps, and Richardson and colleagues (10,11) later reported their experiences using a tying technique and no crushing clamps. additionally to those previous experiences, our planned changes to the customary technique are supported the anatomical distribution of the uterine circulation that creates attainable the safe haemostasis of the uterine and ovarian arteries with clamping for traction.

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