

CESAREAN SECTION AS ONE OF COMMON CAUSES OF URINARY TRACT FISTULAS

Hypothesis / aims of study

The purpose of this study was to review urologic complication after gynecologic surgery referred to urology department of our hospital in 8 years.

In woman due to approximation of urinary and internal genital tract, urinary tract is exposure to involve with gynecologic disease or injury during gynecologic surgeries. About 50-60% of urinary tract injuries are during gynecologic surgeries (1). On the other hand in about (0.2-2.5%) of major gynecologic surgery, there is seen bladder or ureter injury (1).

Regarding to some of injuries is not report or repair spontaneously or loss of a total or a part of one kidney function, It may be that true prevalence of bladder or ureteral injuries are more than these amounts.

Because we have not any information from these injuries in our region, we started these studies, to clear our region problem and way of resolving them.

Study design, materials and methods

The study is descriptive statistical, all document of patients of urology department (more than 22000 patients from 1995-2002) is reviewed and the documents of patients with urinary tract injury due to gynecologic surgery were selected and reviewed again. The review was about all information including: age, parity, the cause of refers the time of refer after injury, laboratory finding, radiologic and cystoscopy finding, kind and site of primary surgery. The patients by call contact or directly and complete their information followed. From 22000 hospitalizations in 8 years, there were 29 patients with lower urinary tract injury after gynecologic surgery.

Results

The information of 29 patients analyzed. Mean of age of patients was 43.3 year (20-70y), and mean parity 4.9(0-14). The most common symptom was continuous urinary incontinence in 48.27% (14 cases) and then diagnosis during operation 20.68% (6 pts) and bad general condition and abdominal pain, inapperence, nausea, vomiting, in 10.34% (3pts) and vaginal discharge, hematuria, increased daytime frequency and urgency symptom, voiding from two urethra each one in (3.44%) 1 pts.

The most common operation caused urinary tract injury were abdominal hysterectomy in 34.48 % (10 pts) and cesarean section in 34.48% (10 pts) (table 1).

Table 1:

(Relative prevalence of gynecologic surgery caused urologic complication)

Surgery	Number	Percent
Abdominal hysterectomy	10	34.48
Cesarean section	10	34.48
Vaginal hysterectomy	2	6.89
Curettage and laparatomy	1	3.34
Pereira operation	1	3.34
Radical hysterectomy	1	3.34
Tubal ligation	1	3.34
Excision of ovarian mass	1	3.34
Burch colposuspention	1	3.34
Cystocele repair	1	3.34

Urine analysis of them showed pyuria in 48.27% and hematuria in 34.48/% urine culture was positive in 21 cases (72.41%). The most common operation cause of urinary tract injury was abdominal hysterectomy and cesarean section equally. Urinary tract injuries include: vesicovaginal fistula in 10 patients (34.48%), ureteral ligation in 10 (34.48%), bladder rupture in 6, uterovesical in 1, urethero vaginal fistula in 1 and foreign body in bladder in 1 patient.

Interpretation of results

Despite decrease of urinary tract injuries in gynecologic operation, these complications seen frequently. Comparison of between the result of this study with similar articles appears low age of this patient (however difference isn't significant) that probably this is due to high prevalence of cesarean section and other operation in this age group (2).

In this study, the cesarean section is one of operation resulting to ureteral injuries. That has significant difference to other similar studies that could be due to frequent doing of cesarean section in unexperienced hand in emergent status. There was no ureteral due to lower within diagnostics or therapeutic laparoscopy. It may be due to lower incidence of laparoscopy in our region there was no ureteral injury with vesicovaginal fistula.

Review of articles shows about 94.21% of bladder injuries is due to abdominal hysterectomy and cesarean section is not of operation resulting urologic injury but in this study, abdominal hysterectomy and cesarean section are equally in resulting lower urinary tract injuries.

Concluding message

The rate of urinary tract injuries in this study during cesarean section was higher than similar studies and diagnosis during surgery was lower. The most of patients had positive urine culture. According to above, results suggested:

- 1- In training of gynecologist: The gynecologists must be careful to diagnosis and follow up of urinary tract injuries.
- 2- The gynecologists must learn cystoscopy as one way of accurate diagnosis of bladder injury.
- 3- Positive urine culture is important after gynecologic and pelvic injury.
- 4- According to this study cesarean section is one of common and important causes of lower urinary tract injuries therefore because frequent doing of this operation we suggest careful review in indication and train of cesarean section.