

URINARY TRACT INJURIES DURING OBSTETRICS AND GYNECOLOGICAL SURGICAL PROCEDURES AT AGA KHAN UNIVERSITY HOSPITAL KARACHI, PAKISTAN. (A 20 YEAR REVIEW)

FAUZIA JAVED, JAVED RIZVI

Hypothesis / aims of study

To determine the prevalence of urinary tract injuries, identification of risk factors and methods employed for repair and their outcomes.

Study design, materials and methods

The Aga Khan University hospital is a referral centre for secondary and tertiary care. A review of iatrogenic urological injuries due to obstetrical and gynecological surgeries was performed for a 20 year period from 1985 – 2004. For these identified cases, their demographic data in terms of pre-operative risk factors like previous c-section, previous pelvic surgeries, history of endometriosis, pelvic inflammatory disease and pelvic infections; Intraoperative risk factors, distorted anatomy, poor visualization, hemorrhage, nature of urological injury and its site, was retrieved. The time of recognition of injury, methods of repair and outcomes were also noted. Literature search to seek international standards and appraise preventive measures was performed on the Medline. Information on all these variables was collected on a data collection form, and entered in SPSS version 13 and analyzed

Results

From 1985-2004 a total 110 urinary tract injuries occurred of which 39 (35.4%) were ureteric and 71 (64.5%) were urinary bladder injuries. During this study period 12567 caesarean sections were performed 31/12567 (0.24%) had urinary bladder injuries and 2 / 12567 (0.01%) sustained ureteric injuries. During C-sections our urinary bladder injury rate of 0.24% and ureteric injury rate of 0.01% is comparable with the rest of international figures of 0.25-0.3%. Majority of these patients 27/33 had previous c-sections major placenta previa with morbidly adherent placenta while 2 patients underwent caesarean hysterectomy

Interpretation of results

Urinary tract injuries complicate approximately 1% of gynecological and obstetrical operations. This iatrogenic complication is a serious matter but failure to recognize it can be very distressing both to the patient and surgeon. Repair of recognized urinary tract injuries during the same procedure has a good outcome. In contrast unrecognized injuries, especially those to the ureters repaired later carries a poor prognosis with eventual loss of renal function and development of urological fistulae's. Careful planning of any surgery is necessary, analysis of associated risk and realistic counseling of organ damage is mandatory.

Concluding message

Despite precautionary measures urinary bladders or ureters may still be injured during surgery even at the hands of the most experienced surgeon. Any institution which trains obstetricians & gynecologists should impart skills to recognize, repair or seek help in these adverse situations. Post operatively clear and precise communication with the patient regarding the injury and its prognosis should be carefully documented

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Is this a clinical trial?	No
What were the subjects in the study?	HUMAN
Was this study approved by an ethics committee?	Yes
Specify Name of Ethics Committee	Aga Khan University ERC
Was the Declaration of Helsinki followed?	Yes
Was informed consent obtained from the patients?	Yes