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Diagnostic Neglect Regarding Ureter Ligation After Hysterectomy

Yaşar BİLGE

Department of Forensic Medicine,
Faculty of Medicine,
Ankara University,
Ankara - TURKEY

Abstract: Complications following cesarean and hysterectomy operations can occur, one of which is ureter ligation.

Aims: Urological injuries that occur during hysterectomy are rare but important causes of morbidity. It was aimed to investigate in this case report whether there was any evidence to support malpractice in Court.

Case Report: The patient was a woman in her 34th week of pregnancy with familial Mediterranean fever (FMF) and nephrotic syndrome with renal amyloidosis. Preterm operational diagnosis was placenta previa totalis and repeat cesarean section was performed with confirmed consent. When the placenta spontaneously ruptured, hysterectomy was undertaken. Ureter ligation with acute renal failure was diagnosed later in another hospital. Left ureterolysis and dilation were performed.

Discussion: Under normal operational processes, the ureter should be protected from ligation and cutting. The complication of ureter ligation and cutting incidence is reported in approximately 1.5% of procedures. The operation should be performed by skilled gynecologists and urologists trained in surgery of the pelvic retroperitoneum. This patient had FMF, amyloidosis and renal tubular necrosis due to hemorrhage. These factors were the main cause for acute renal failure. The precipitating factor was left ureter ligation, which accelerated the development of renal failure. For this reason, diagnosis should be done as soon as possible. The interval between operation and diagnosis of this case and treatment was approximately 46 days.

Conclusions: Iatrogenic ureteric injury is still a major cause of harm and concern in hysterectomy. The patient is entitled to indemnification from hospital A. The patient was in great need of treatment as a result of the complication. Delayed diagnosis and treatment of ureter ligation is a neglect of the patient's rights. Our Social Security needs to be expanded to cover not only operations but also resulting complications.

Key Words: Obstetrics, hysterectomy, ureter injury, physician responsibility, complication, neglect

Histerektomi Sonrası Üreter Ligasyonu Hakkında Tanı İhmali

Giriş: Histerektomi ve sezeryan operasyonlarının komplikasyona bağlı hastalıklardan biri de ureter ligasyonudur.

Amaç: Histerektomi sırasında ürolojik yaralar nadiren izlenir fakat önemli bir morbidite sebebidir. Mahkemede bir olgu için tıpta uygulama hatası olup olmadığı araştırıldığından bunu belirlemek amacıyla çalışma planlandı.

Olgu: Ailevi Akdeniz Ateşi, renal amiloidozlu nefrotik sendromlu bir kadın 34.3 Gebelik haftasındadır. Aydınlatılmış onam çerçevesinde ameliyat öncesi tanısı total plasenta previa ve nüks sezeryan ameliyatıdır. Histerektomi yapılırken plasenta kendiliğinden rupture oldu. Diğer hastanede akut böbrek yetmezlikli üreter ligasyonu tanısı kondu. Sol ureterolizis ve dilatasyon operasyonu yapıldı.

Tartışma: Normalde ameliyat sürecinde kesme ve bağlama sırasında ureter korunmasına ihtiyaç duyulur. Ureter ligasyonu ve kesilmesi yaklaşık % 1.5'dur. Pelvik pelviperitoneum cerrahisinde yetişmiş urolog ve ginekologlar ameliyatı yapmalıdır. Hasta ailevi Akdeniz ateşi, amiloidozisli ve kanamaya bağlı renal tubuler nekrozislidir. Bu faktörler akut böbrek yetmezliği için predispozan faktörlerdir. Olayı ilerleten unsuru sol ureter bağlanmasıdır. Bu süreç, böbrek yetmezliği gelişimini hızlandırır. Bu nedenle hastalık tanısı hızlı konulmalıdır. Fakat hastada ortalama tanı koyma ve tedavi süreci 46 gündür.

Sonuç: Histerektomide iatrojenik ureter yaralanması hala büyük zarar sebebi ve sorundur. Hastanın zararından A hastanesi sorumludur. Hastada izlenen komplikasyon tedaviyi gerektirir. Ureter bağlanmasında geçikmiş tanı ve tedavi hasta haklarının ihmal edilmesidir. Bizim Sağlık güvencemizin yalnız operasyonları değil fakat aynı zamanda komplikasyonlar olması yönünde de geliştirilmesine ihtiyaç duyar.

Anahtar Sözcükler: Obstetrik, histerektomi, ureter yaralanması, hekim sorumluluğu, komplikasyon, ihmal

Introduction

Cesarean and hysterectomy are recommended for gynecologic and obstetric diseases. Dr. Eduardo Porro performed the first cesarean hysterectomy in 1876.

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Correspondence

Yaşar BİLGE

Department of Forensic Medicine,
Faculty of Medicine,
Ankara University,
Ankara - Turkey

yasar.bilge@medicine.
ankara.edu.tr

As the procedure became more common, complications began to emerge, such as excessive hemorrhage, ureter injury, dense adhesions, uretero-vaginal fistula, postoperative anuria, urinary fistula, urinary bladder trauma, low back pain, hydronephrosis, ureteric stenosis, vesicoureteral reflux, uterine rupture, pelviperitonitis, urinary fistula and lengthening of the ileal graft (1-3). Estrade et al. (4) (2005) reported posthysterectomy complications of sacrospinous ligament fixation for genital prolapsus. Accidental vaginal incision was recognized following a prolonged second stage of labor (5). Ureter trauma was associated with obstetric operations (cesarean section, hysterectomy) in some reports (6-8). Emergency peripartum hysterectomy incidence was 0.1-0.8 (9-11). It was reported that emergency hysterectomy incidence in Turkey after 8494 births was 4.12% (12). Gayer et al. (13) (2005) explained that urinoma is often clinically unsuspected, as symptoms are non-specific and the patient may present weeks and even months after the injury. This plaintiff claimed in court that ureter ligation was due to inattention and carelessness. The Judge decided to examine an expert's opinion regarding malpractice.

Urological injuries that occur during hysterectomy are a rare but important cause of morbidity. This plaintiff submitted a claim for damages in court against the physician's judgement. The Law Court Judge's Director requested an evaluation of the physician and of hospital responsibility for the urinary tract injury due to hysterectomy for obstetric disease. An investigation into the possibility of malpractice was conducted.

Case Report

A woman in her 34th week of gestation had familial Mediterranean fever (FMF) and nephrotic syndrome with renal amyloidosis. In her third pregnancy and due to preterm abortion risk, she was hospitalized for clinical assessment in the Obstetrics and Gynecology Department in hospital A.

Ultrasonographic (US) investigation on 27.04.2004 was normal. Color Doppler US of right lower extremities was normal and no problems were noted. Preterm operational diagnosis was placenta previa totalis and repeat cesarean section was performed with confirmed consent on 15.05.2004 at 20:20 p.m. After Pfannenstiel incision, the uterus was opened with highly transverse

section and a viable male fetus was taken with section. When prophylactic blood transfusion was started, the placenta was tightly inserted into the posterior uterus. The placenta spontaneously ruptured, but its anterior region was connected to the uterine wall, and was separated with manipulation. The lower uterine section was easily ruptured due to its softness and thinness and there was excessive hemorrhage. Suturing failed to stop the hemorrhage. After confirmed consent from her relatives, non-radical hysterectomy was started. There was excessive hemorrhage from the left stump. Round ligament, right proper ovarian ligament, infundibulopelvic ligament, uterine artery, cardinal ligament, and uterosacral ligament were entangled, and were cut and sutured. After meticulous efforts to establish hemostasis, anatomic closure was done.

On 17.05.2004 renal US findings demonstrated increasing bilateral renal parenchymal echogenicity, corticomedullary parts lyses (associated with renal parenchymal disease), and dilatation of bilateral collecting tubules. In order of urgency, US notes were bilateral renal dimensions, parenchymal thickness, increasing parenchymal echogenicity, and bilateral collecting tubule dilatation. These were associated with pyelonephritis and hydronephrosis. Magnetic resonance (MR) urography was planned, but the patient's health insurance was insufficient to cover the cost. She was discharged from hospital A. She applied to another hospital, hospital B, with acute renal failure on 15.06.2004. Left renal hydronephrosis was diagnosed in abdominal US. After antegrade pyelography, left ureter ligation was diagnosed. Left nephrostomy catheter was removed. Double-J catheter was attempted but failed. Left nephrostomy was attached in the Urology Department. Left ureterolysis and dilation operation was performed on 01.07.2004, approximately 45 days after the patient's hysterectomy.

Discussion

Ureteric trauma constitutes a serious disease that can induce renal complications. Steps are present in normal operating procedures to protect the ureter from ligation and cutting with hanging. Hence, it can be understood that most of the injuries are associated with attempts to achieve hemostasis without proper identification of the ureter (3).

In this case, although the cesarean operation was elective to deliver the fetus, physicians made the decision for hysterectomy due to the urgency of lower segment hemorrhages. Because this was not elective surgery and was an obligatory process due to life-threatening conditions, the physician operated quickly. Normal anatomic position of the ureter can change in pregnancy. It wasn't observed enough security due to left stump hemorrhages. Physicians need to prevent hemorrhage previously during operational status. The physician in hospital A was not at fault. The operation was made by gynecologists trained in the surgery of pelvic retroperitoneum. Vakili et al. (7) (2005) reported that abdominal hysterectomy was associated with a higher incidence of ureteral injury (1.2-2.2%), but this was not significant. In another report, it was stated that ureteric ligation was the most common mechanism of injury (47%) (8).

A retrospective analysis of incidence of urological injuries was determined as 0.40% (0.28% bladder and 0.12% ureteral). No ureteral injuries occurred during vaginal surgery. Carley (14) reported that the incidences of bladder and ureter injury, respectively, were 0.58% and 0.35% for abdominal hysterectomy, 1.86% and 0% for vaginal hysterectomy, and 5.13% and 1.71% for hysterectomies performed for obstetric indication. When observing ureter injury, repairs healed successfully (15). It was thought that many specialist obstetricians and gynecologists feel inadequately trained to deal with certain situations such as injury to bowel, bladder, ureter and major vessels, and need further training to prevent and manage these problems. These are four modules: anatomy includes interactive lectures, cadaver dissection and examination of prosects with specific learning tasks (16).

This patient had FMF, amyloidosis and renal tubular necrosis due to hemorrhage. These factors are the main causes for acute renal failure. The precipitating factor

was left ureter ligation, which accelerated the development of renal failure. For this reason, diagnosis must be made quickly. It was reported that early detection and appropriate management ensure successful healing and minimal long-term sequelae (15).

This patient did not have sufficient insurance coverage for diagnosis of ureter ligation. No MR urography was performed, and the patient was referred to hospital B. The time interval between diagnosis and treatment was approximately 46 days. Our Social Security needs to be expanded in order to cover the costs of not only operations but also complications. If a patient's Social Security/health insurance is insufficient, hospital administration will not accept them, because of per sentimental complications. Hospital administrations are obligated to have processes in place to prevent such complications. This was a case of diagnostic neglect to not pursue prognosis of the patient. There was no disability with respect to the ureteric ligation because of its reversibility. However, The patient was unemployable period for two months. Ureter injury complications are renal failure and urinomas. Gayer et al. (13) reported that one of the rarer etiologies is a urinoma resulting from a ureteral injury. This complication is often clinically unsuspected, as symptoms are non-specific and the patient may present weeks and even months after the injury. They emphasize the crucial role of computerized tomography (CT), especially with delayed scanning, in reaching this diagnosis.

In conclusion, iatrogenic ureteric injury is still a major cause of harm and concern in hysterectomy. The time taken to detect the injury remains the most important morbidity-related factor. Delayed diagnosis and treatment of ureter ligation neglected the patient's rights. The patient's losses must be indemnified by hospital A. There was no disability as a result of this malpractice, but the patient was temporarily unemployable time for two months.

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