

Our 19- Year Experience On Femoral Hernia And Bassini-Kischner Repair

Femoral Herni Ameliyatlarında 19 Yıllık Deneyimimiz ve Bassini-Kischner Onarımı

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ÖZET: *Amaç:* Femoral herni onarımı yapılan son 19 yıl-
daki hastaların incelenmesi, Bassini-Kischner yöntemi uy-
gulanan olguların literatür ışığında irdelenmesi.

Gereç ve Yöntem: Nisan 1988-Mart 2007 yılları arasında
ameliyat edilen femoral hernili olgular çalışmaya alındı.
Başvuru şekli; acil-elektif, ortalama yaş, kadın erkek ora-
nı, herninin sağ ve/veya solda oluşu, seçilen cerrahi onarım
yöntemi dökümanite edildi. Bassini-Kischner onarımı
yapılan olguların uzak dönem sonuçları incelendi.

Bulgular: Ameliyat edilen olgu sayısı 141 idi. Doksan yedi
olgu (%69) elektif koşullarda 44(%31) olgu ise acil ola-
rak ameliyat edildi. Onarım olarak 96 olguda McVay, 31
olguda Bassini- Kischner yöntemi kullanılırken 14 olguda
mesh ile onarım yapıldı. Bassini-Kischner onarımı yapılan
hastaların dosya kayıtlarında ve kontrole gelenlerin muay-
nesinde nüks görülmedi.

Sonuç: Femoral hernia daha çok acil koşullarda ameliyat
gerektirir. Bassini- Kischner onarımı uygulaması kolay bir
tekniktir, elektif femoral herni onarımlarında tercih edile-
bilir.

Anahtar Kelimeler: Femoral herni, onarım, Bassini-
Kischner.

ABSTRACT: *Background and Purpose:* Patients
undergoing surgery for the repair of femoral hernia during
the last 19 years were examined and reviewed in the light
of previous studies evaluating the results of Bassini-
Kischner repair.

Methods: Patients undergoing surgery for femoral hernia
between April 1988 and March 2007 were identified. The
mode of admission, emergency vs. elective surgery, mean
age, female to male ratio, hernia side and the preferred
surgical technique were documented and long-term results
of Bassini- Kischner repair were reviewed.

Main Findings: A total of 141 cases were operated.
Ninety-seven patients (69%) underwent elective surgery
while 44 (31%) had emergency surgery. The methods used
for repair were McVay method in 96 patients, Bassini-
Kischner method in 31 patients, and mesh repair in 14. No
cases of recurrence were determined either from patient
records or during follow- up visits of patients who
underwent Bassini- Kischner repair.

Conclusions: Femoral hernias require emergency surgery
more frequently and Bassini- Kischner repair is a simple
technique and it may be preferred for the elective surgical
treatment of femoral hernia.

Key Words: Femoral hernia, repair, Bassini-Kischner.

INTRODUCTION

Femoral hernias require emergency surgery
more frequently than inguinal and other types of
hernias despite the fact that they comprise only 2%
to 8% of all inguinal hernias(1). Along with higher
incidence in the elderly, requirement for an emer-
gency intervention may help to explain the higher
morbidity and mortality rates associated with this
condition(2), which have remained essentially the
same during the last decade(3).

A variety of repair methods are used for femo-
ral hernias. However, McVay hernia repair and
mesh repair, also used for the repair of inguinal her-
nias, are more frequently applied(4). Bassini- Kis-
chner repair is a simple and brief technique for the
repair of femoral hernias. However, the long-term
results are not very well known and due to the risk
of femoral vein compression and deep venous
thrombosis, it is not frequently performed.

Many studies have examined the demographic
characteristics and surgical mortality and morbidity
rates in patients with femoral hernias(3,5,6). How-
ever, studies investigating different repair methods
are scarce(3,4).

In the present study, patients undergoing surgery for the repair of femoral hernias during the last 19 years at the Department of General Surgery ofHospital were examined and reviewed in the light of previous studies, with particular emphasis on long-term results of Bassini- Kischner repair.

METHODS AND MATERIALS

Patients undergoing surgery for femoral hernia between April 1988 and March 2007 was identified. The mode of admission, emergency vs. elective surgery, mean age, female to male ratio, hernia side and the preferred surgical technique were documented. Diagnoses were based on physical examination, ultrasonography (US), and in some patients on surgical findings. Recurrence rates were identified in patients undergoing Bassini- Kischner repair. In our unit, Bassini- Kischner repair is performed through an infra-inguinal approach, two or three non-

absorbable sutures are placed between the inguinal ligament and the Cooper ligament(7).

Statistical analyses were performed with Paired-Samples T test using SPS software.

RESULTS

A total of 141 cases were identified, of whom 112 (80%) were female and 29 (20%) were male. The mean age was 52.43 ± 16.48 years (range: 23-90 years). Overall 97 (69%) and 44 (31%) patients underwent elective and emergency surgery, respectively. Mean age of cases undergoing emergency surgery was higher (58.59 ± 17.65) compared to that of elective surgery cases (49.63 ± 15.21). Femoral hernia was located at the right side in 80 cases, at the left side in 57 cases and bilaterally in 4 (Table 1). McVay method was used in 96 patients (65 elective, 31 emergency), Bassini- Kischner method in 31 patients (25 elective, 6 emergency), and mesh repair in 14 (7 elective, 7 emergency) (Figure 1).

Table 1. Demographics characteristics of patients.

| | Emergency | Elective | Total | P |
|-----------------------------|-------------------|-------------------|-------------------|--------|
| Number | 44 | 97 | 141 | |
| F/M | 37/7 | 75/22 | 112/29 | |
| Age | 58.59 ± 17.65 | 49.63 ± 15.21 | 52.43 ± 16.48 | P 0.03 |
| Right/Left/Bilateral | 23/21/0 | 57/36/4 | 80/57/4 | |

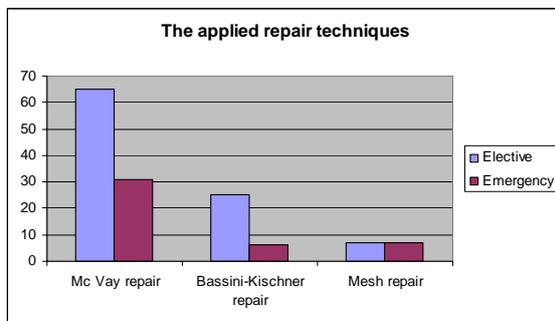


Figure 1. Repair techniques

Ten of the 31 patients undergoing Bassini- Kischner repair could be reached and invited for control while remaining 21 had previous hospital records on follow-up visits. No cases of recurrence were determined in either group.

DISCUSSION

Femoral hernias, similar to inguinal hernias, develop in the inguinal region and are 4 to 10 times more frequent among females(1,5). In line with this observation, 80% of our patients were female.

Femoral hernias are more likely to strangulate, and the morbidity and mortality rates in patients undergoing emergency surgery for femoral hernias may reach up to 30% and 10%, respectively(8). The prognosis is even worse in elderly patients because of missed diagnosis and delayed intervention. Early diagnosis and elective surgery may reduce the morbidity and mortality to a significant extent(5,8).

The diagnosis of femoral hernia is occasionally made during physical examination, but diagnosis during surgery is more frequent. Differential diagnoses include lymphadenopathy, lipoma, or inguinal hernias. Many studies indicate a high rate of misdiagnosis before the operation. For example in the study by Naude et al.(6) , only 5 out of 22 cases, and in the study by Coreder(9) only 36 out of 98 patients were correctly diagnosed before surgery. Inadequate use of supportive diagnostic methods and examination by inexperienced physicians might lead to high frequency of emergency surgery due to strangulation and incarceration. There has been no major change in the frequency of emergency surgeries performed for femoral hernias during the last decade, and the reported rates of emergency surgery for femoral

hernias vary between 30% and 50%(3). Similarly, 31% of our cases required emergency surgery.

A swelling below the inguinal ligament and medial to inguinal region upon Valsalva maneuver should raise the suspicion of femoral herniation, and US can be useful for differential diagnosis. A mass observed nearby the femoral vein and below the inguinal ligament may help with the diagnosis(10,11). Also, herniography or computerized tomography (CT) can be used for diagnosis, the latter being particularly useful preoperatively. Suzuki et al.(12) correctly diagnosed 45 out of 46 cases with femoral hernias by the aid of CT. However, routine use of CT for the diagnosis of femoral hernias is limited due to cost issues(12,13). Diagnostic CT and herniography were not used for the diagnosis of our cases.

In the study by Kulah et al.(14) strangulation occurred within the first 3 and 21 months after a diagnosis of femoral hernia in 22% and 45% of the patients, respectively. Therefore early operation is recommended in patients diagnosed with this condition(14,15).

There is a scarcity of data on elective or emergency surgery in femoral hernias, and opinions on the best technique are varied. Also, there has been significant debate on the results of different repair methods. McVay hernia repair and mesh repair are the most frequently used surgical techniques(4,6,16-18). Suppiah et al.(3) performed "opposition method" on most of the patients (n=47) in their study and observed deep venous thrombosis and recurrence in two patients, one each. The tissue-based complete groin repair and a preperitoneal mesh repair were performed by Chan et al. And the overall recurrence rate was 3.1%(19). In the present study, Bassini- Kischner repair was used in 31 of 141 patients, with no cases of recurrence.

CONCLUSION

A careful physical examination and use of US or CT in suspected cases may increase the rates of correct preoperative diagnosis in femoral hernias. Bassini- Kischner repair is a simple technique and it may be preferred for the elective surgical treatment of femoral hernia.

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