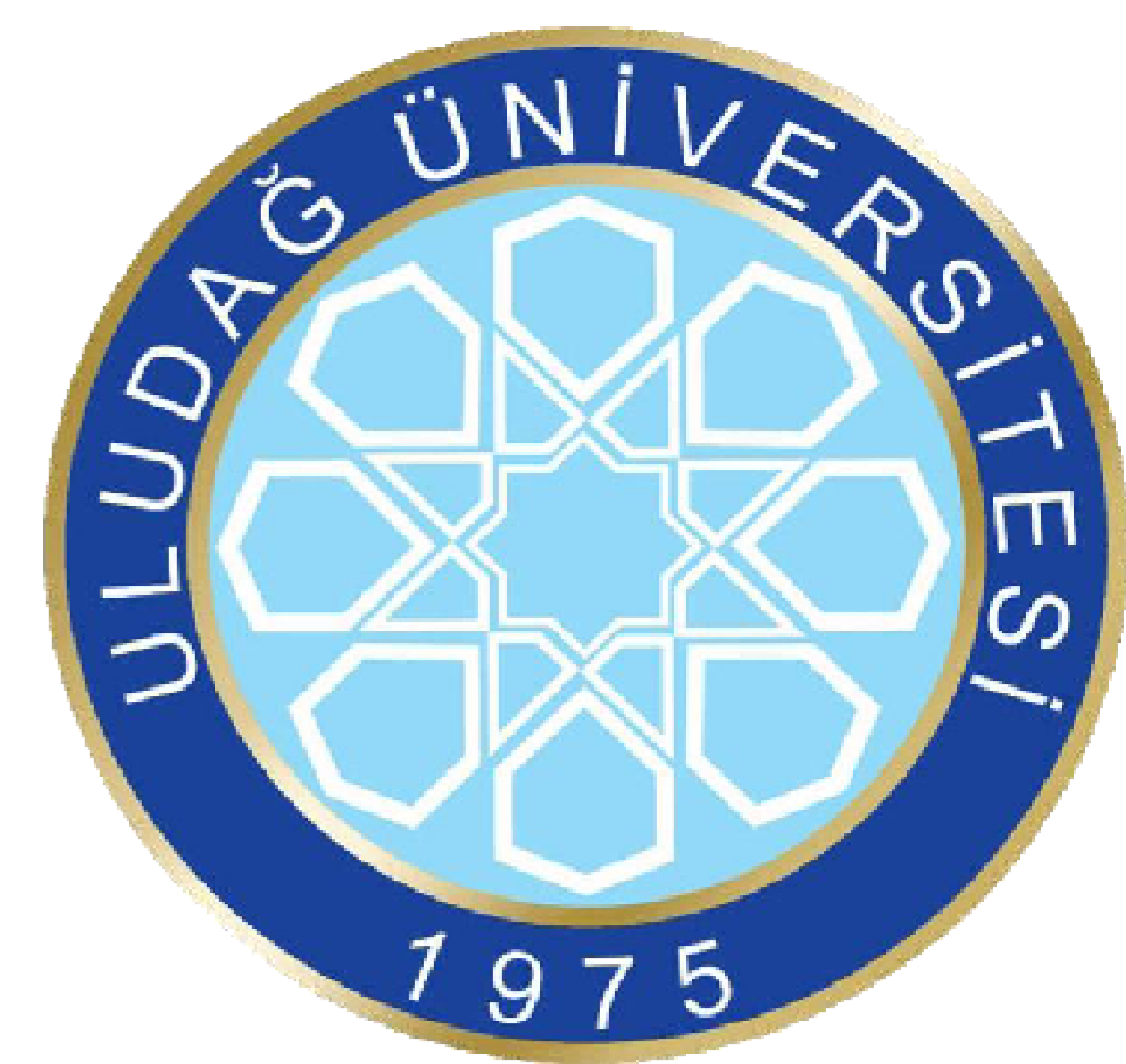




FACTORS INFLUENCING LYMPHOCEL DEVELOPMENT AFTER KIDNEY TRANSPLANTATION: SINGLE CENTER EXPERIENCE



Emel Isiktas Sayilar¹, Alparslan Ersoy¹, Yavuz Ayar¹, Mehmet Fethullah Aydin², Ahmet Bilgehan Sahin², Burhan Coskun³, Onur Kaygisiz³, Abdulmecit Yildiz¹, Yakup Kordan³, Hakan Vuruskan³

¹Uludag University Medical Faculty, Department of Nephrology, Bursa, Turkey

²Uludag University Medical Faculty, Department of Internal Medicine, Bursa, Turkey

³Uludag University Medical Faculty, Department of Urology, Bursa, Turkey

INTRODUCTION:

Lymphocele is a well-known postoperative complication after kidney transplantation (KT). The incidence varies between 1% and 26% in the literature. The following risk factors have been associated with an increased incidence of lymphocele in the adult literature: age of recipient, acute rejection, deceased donor, immunosuppressive drugs, multiple kidney transplantations and coagulation anomalies. The aim of this study was to analyze incidence, risk factors and outcome of post-transplant lymphocele in a large adult cohort.

METHODS:

This observational, cross-sectional study included 395 consecutive patients (219 males and 176 females) underwent KT from 184 living and 211 deceased donors in our center between January 2007 to 2014. A lymphocele was diagnosed with ultrasonography at the presence of signs or symptoms such as abdominal pain, palpabl mass, lower limb edema, urine retantion and impaired graft function.

RESULTS:

The incidence of lymphoceles in our cohort was 31.9% (n=126). The lymphocele was more developed within first 2 weeks (Fig.1). There was no significant difference in age (38.5±13.6 vs. 37.4±13.3 years), body mass indices (BMI) (23.3±4 vs. 23.5±4.6 kg/m²), age of donors (50.8±15.3 vs. 48±15 years), deceased donor ratios (49.4% vs. 50.6%), hemoglobin levels (11.5±1.9 vs. 11.4±2 g/dL), history of abdominal surgery (11.1% vs. 16.4%), acute rejection (11.1% vs. 10.1%), presence of obesity (BMI ≥30 kg/m²) (28% vs. 28.9%), and also in terms of dialysis type and primer disease between lymphocele and non-lymphocele groups, respectively. The pre-transplant serum albumin levels (3.29±0.67 vs. 3.48±0.69 g/dL, p=0.009) in the lymphocele group and diabetes mellitus ratios (15.9% vs %4.5%, p<0.001) in the non-lymphocele group were lower than that of other group.

At the time of the diagnosis, the serum albumin levels of lymphocele group (3.21±0.61 g/dL) were comparable with their pre-transplant levels (p>0.05). Also serum creatinine levels during the lymphocele were 2.62±2.49 mg/dL. The lymphocele ratio in the patients received cyclosporin was higher than the patients not received it (37.5% vs. 27.4%, p=0.032). There was no difference in lymphocele incidence between patients taken mTOR inhibitors, mycophenolate mofetil or sodium and or not. In regression analysis presence of diabetes mellitus (OR 2.87, 95% CI:1.28-6.43, p=0.01), KT from cadaveric donors (OR 1.99, 95% CI:1.22-3.26, p=0.006), older age of donors (OR 1.01, 95% CI:1.00-1.03, p=0.04) and lower albumin levels (OR 0.69, 95% CI:0.49-0.98, p=0.04) were independent risk factors for post-transplant lymphocele occurrence. The lymphoceles were treated with follow-ups in 73 case, aspiration in 26 case, drenage in 17 case and fenestration in 10 case.

CONCLUSIONS:

In summary, lymphocele was an uncommon complication in our cohort after KT due to possible differences in operation techniques of surgeons. We concluded that diabetes mellitus, deceased donor usage, older donor and hypoalbuminemia were independent risk factors for lymphocele development.

