

# MULTIDISCIPLINARY

## OPHTHALMOLOGICAL SITUATION OF THE PATIENTS WITH CHRONIC RENAL FAILURE UNDERGOING HAEMODIALYSIS

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**Introduction:** Haemodialysis (HD) is the unique treatment modality for end stage chronic renal failure (ESCRF) patients. In these patients, refractive changes, dry eye, increased tear osmolarity, conjunctival calcium deposits, band keratopathy, corneal endothelium changes, lenticular opacity, macular edema, ischemic optic neuropathy, elevated intraocular pressure, retinal detachment, and retinal hemorrhage can be seen due to haemodialysis or ESCRF.

**Aim:** We aimed to assess the ophthalmological situation of the patients with ESCRF undergoing haemodialysis.

**Methods:** A total of 504 eyes of 252 patients with ESCRF undergoing haemodialysis were recruited in this study. All patients were asked about demographic factors, renal failure and haemodialysis information. All participants were underwent total ophthalmologic examination.

**Results:** A hundred and twenty patients were female, the average age was  $65.21 \pm 13.15$  years (range 21-87) and average duration of haemodialysis was  $4.95 \pm 4.25$  years (2-20). The most reasons of the chronic renal failure is hypertension 119/252 (47.2%), diabetes mellitus 91/252 (36.1%) and polycystic kidney disease 12/252 (4.8%). 216 (42.8%) eyes were pseudophacic and 170 (33.7%) eyes have cataract in different grades. 120 of 504 (23.8%) eyes have proliferative diabetic retinopathy (DRP), 28 of 504 (5.5%) have non-proliferative DRP, 20 of 504 (3.9%) have choroidal neovascular membran (CNVM), 56 of 504 (11.1%) have geographic atrophy, 36/504 (7.1%) have drusen, and 60/504 (11.9%) have epiretinale membrane. Twenty (7.8%) patients have glaucoma and 94 (37.1%) patients have dry eye disease.

**Conclusion:** The most common vision threatening situation in ESCRF patients was cataract. 76.5% of the eyes have still cataract or had cataract surgery. Most common ocular surface problem was dry eye disease (37.1%). In addition, proliferative DRP rate was more than in all diabetic population, because they are probably at last stages of the organs affected by diabetes mellitus.