Characteristics and Surgical Outcomes of Rhegmatogenous Retinal Detachment in Elderly Patients

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Purpose:
To identify the clinical characteristics and surgical outcomes of rhegmatogenous retinal detachment (RRD) in elderly patients, who are an increasing segment of the population with little data regarding RRD presentation and outcomes.

Methods:
This is a multicenter, interventional, comparative cohort analysis of the Primary Retinal Detachment Outcomes (PRO) study. Elderly (age 80 or older) patients were compared to younger (age 40–79) patients. Those with less than 90 days of follow-up were excluded. Primary outcome measure was single surgery anatomic success (SSAS), and secondary outcome was final visual acuity.

Results:
A total of 2144 consecutive surgeries for primary RRD were included. Mean (SD) age was 62.1(9.8) years (range, 40–91), and 125/2144 (6%) were 80 years or older. Compared to younger patients, elderly patients were more likely to be pseudophakic (odds ratio(OR), 12.8; 95%CI, 6.7–23.5; P<.001), have macula-off detachments (OR, 2.2; 95%CI, 1.5–3.2; P<.001), and pre-operative proliferative vitreoretinopathy (OR, 1.8; 95%CI, 1.03–3.1; P=.02). In older patients, surgery was performed via pars plana vitrectomy (PPV) in 91/125 (73%), PPV with scleral buckle (SB) in 34/125 (27%), and primary SB in 0/125 cases. SSAS was 98/125 (78%) in elderly patients compared to 1716/2019 (84%) in younger patients (OR, 0.7; 95%CI, 0.5–0.9; P=.03). In elderly patients, SSAS for PPV alone was 67/91 (74%) and for PPV/SB was 31/34 (91%) (OR, 3.7; 95%CI, 1.04–13.2; P=.03). At last follow up, mean (SD) logMAR [Snellen equivalent] was 0.79(0.88) [20/125] for older patients compared to 0.40(0.57) [20/40] for younger patients (adjusted difference 0.31; 95%CI, 0.20–0.41, P<.001). In older patients, mean (SD) logMAR at last follow up for eyes that underwent primary PPV was 0.88(0.95) [20/160] compared to 0.50(0.60) [20/63] for patients that underwent PPV/SB (adjusted difference 0.36; 95%CI, 0.04–0.69, P=.03).

Conclusions:
Elderly patients are more likely to present with relatively complex pseudophakic RRDs. SSAS and visual outcomes in elderly patients were worse compared to younger patients. Those who underwent PPV/SB had better outcomes compared to PPV alone.