

Surgeon Age and Operative Outcomes for Primary Rhegmatogenous Retinal Detachment: A 3-year Nationwide Population-based Study

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Abstract

Purpose The aim was to study the association of surgeon age with operative outcomes for primary rhegmatogenous retinal detachment (RRD) in Taiwan.

Methods A total of 7427 adult patients of primary RRD who were treated by 284 ophthalmologists with scleral buckling (SB), pars plana vitrectomy (PPV), or their combination from 2002 to 2004 were identified in the Taiwan National Health Insurance Research Database. The adjusted odds ratios (OR) of 180-day readmission between ophthalmologist age groups were calculated.

Results For SB, patients treated by ophthalmologists aged 51 years had a greater 180-day readmission rate (OR=1.44, 95% confidence interval (CI)=1.01–2.07, $P<0.05$) than those treated by ophthalmologists aged 41–50 years. For PPV, patients treated by ophthalmologists aged 40 years had a lower 180-day readmission rate than those treated by ophthalmologists aged 41–50 and 51 years (OR=0.58 and 0.22, 95% CI=0.47–0.71 and 0.13–0.63, $P<0.001$ and <0.001 , respectively). For PPV+SB, patients treated by ophthalmologists aged 51 years had a higher 180-day readmission rate than those treated by ophthalmologists aged 40 and 41–50 years (OR=3.32 and 2.45, 95% CI=2.29–4.21 and 1.36–4.40, $P<0.01$ and <0.01 , respectively). The absolute differences in the 180-day readmission rate by surgeon age ranged from -0.1 to 3.2%. The proportions of selecting primary SB (without PPV) as the treatment modality were 33.1, 35.6, and 70.6% for the 40-, 41-to 50-, and 51-year groups, respectively.

Conclusions Surgeon age is a relatively weak predictor for the outcomes of primary RRD surgery in aggregate in Taiwan and certainly not appropriate for discriminating performance among individual surgeons.