INCIDENCE RATES OF SURGICALLY TREATED RHEGMATOGENOUS RETINAL DETACHMENT AMONG MANUAL WORKERS, NON-MANUAL WORKERS AND HOUSEWIVES IN TUSCANY, ITALY

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Objectives Candidate factors for idiopathic rhegmatogenous retinal detachment (RRD) include heavy manual handling (requiring Valsalva’s manoeuvre) and body mass index (BMI). We assessed incidence rates of surgically-treated idiopathic RRD among manual workers, non-manual workers and housewives resident in Tuscany, Italy.

Methods In Italy, both public and private hospitals are obliged to issue codified discharge records for archival in patients’ regions of residence; Tuscan hospitals additionally provide employment information, allowing classification of patients as manual workers, non-manual workers or full-time housewives. We retrieved all discharge records bearing a principal diagnosis corresponding to idiopathic RRD (ICD-9 code 361.0–361.07, 361.9) coupled with retinal surgery (DRG code 36) for any resident of Tuscany during 1997–2005. After eliminating repeat admissions, subjects aged 25–59 years were classified as manual workers, non-manual workers or housewives. We extracted population data from the 2001 census and calculated age-standardised admission rates (per 100 000 person-years) based on the WHO Standard European Population.

Results We identified 1380 eligible cases (795 men). Among men, manual workers experienced a 1.9-fold higher age-standardised rate than non-manual workers (17.8 (95% CI, 16.3 to 19.4) vs 9.2 (8.0 to 10.4)). Among women, age-standardised rates were ~two fold higher among both manual workers (11.1 (9.6 to 12.6)) and housewives (10.8 (9.2 to 12.4)) than in non-manual workers (5.6 (4.5 to 6.6)).

Conclusions This study suggests that manual workers are more often affected by idiopathic RRD than non-manual workers. The higher rates of RRD experienced by manual workers accord with the hypothesis that heavy manual handling and high BMI have a causal role.