

## Age, gender characteristics, comorbidity and outcomes in patients with acute stroke and transient ischemic attack (REGION registry data)

E.Y.Okshina<sup>1</sup>, S.Y.Martsevich<sup>1</sup>, N.P.Kutishenko<sup>1</sup>, M.M.Lukiyanov<sup>1</sup>,  
O.M.Drapkina<sup>1</sup>, A.V.Zagrebelnyy<sup>1</sup>, N.A.Dmitrieva<sup>1</sup>, E.V.Kudryashov<sup>1</sup>, S.A. Boytsov<sup>2</sup>

<sup>1</sup> National Medical Research Center for Preventive Medicine (Moscow, Russia)

<sup>2</sup> National Medical Research Center for Cardiology (Moscow, Russia)

**Aim.** To analyse the characteristics and short-term outcomes in patients, hospitalized for acute stroke (AS) and transient ischemic attack (TIA) on a basis of the hospital registry in Moscow.

**Methods.** 900 patients with AS and TIA (age  $71.0 \pm 15$ ; 59.4% women), diagnosed in one of the hospitals in Moscow were enrolled in the REGION-Moscow registry during 2012 to 2017 years. Age and gender characteristics, risk factors, comorbidity and outcomes were estimated.

**Results.** Age of women ( $73.3 \pm 13.9$ ) was 7 years more than for men ( $66.5 \pm 13.2$ ),  $p < 0.05$ . The next cardiovascular (CV) risk factors were detected: hypercholesterolemia in 410 (45.6%) cases, smoking - 104 (11.6%), family history of premature CV diseases - 10 (1.1%). Diabetes and obesity were revealed in 181 (20.1%) and 193 (21.4%), respectively.

Hypertension (AH) was diagnosed in 856 (95.1%) cases (Fig.1), coronary artery disease (CAD) - 517 (57.4%), chronic heart failure (CHF) - 164 (18.2%), atrial fibrillation (AF) - 268 (29.8%). 216 (24%) patients had a history of stroke and 197 (21.9%) history of myocardial infarction. 75% of patients had ischemic stroke, 10% - hemorrhagic, 2% - mixed type and 13% - TIA (Fig.2).

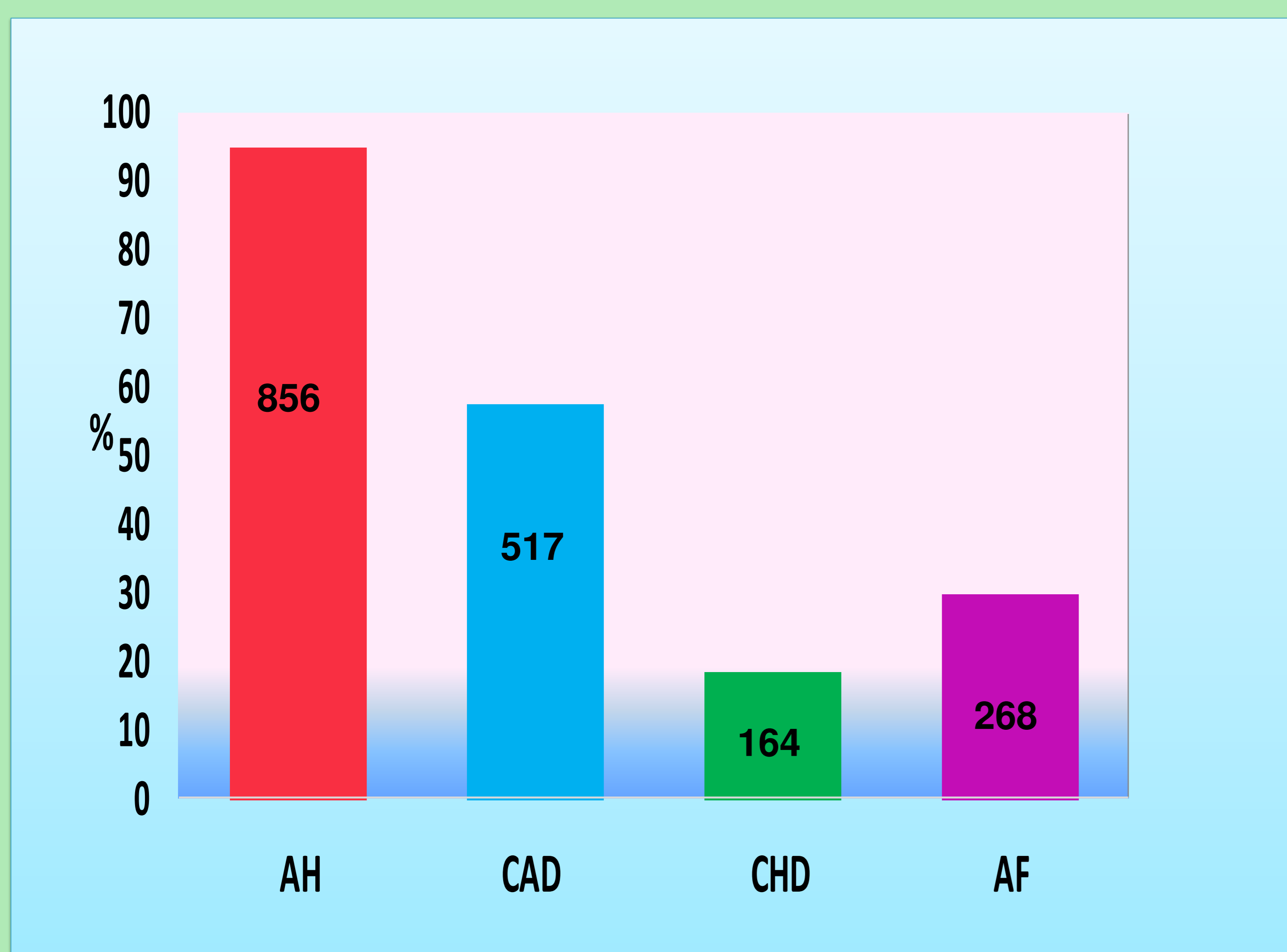


Figure 1. Incidence of CVD in included patients

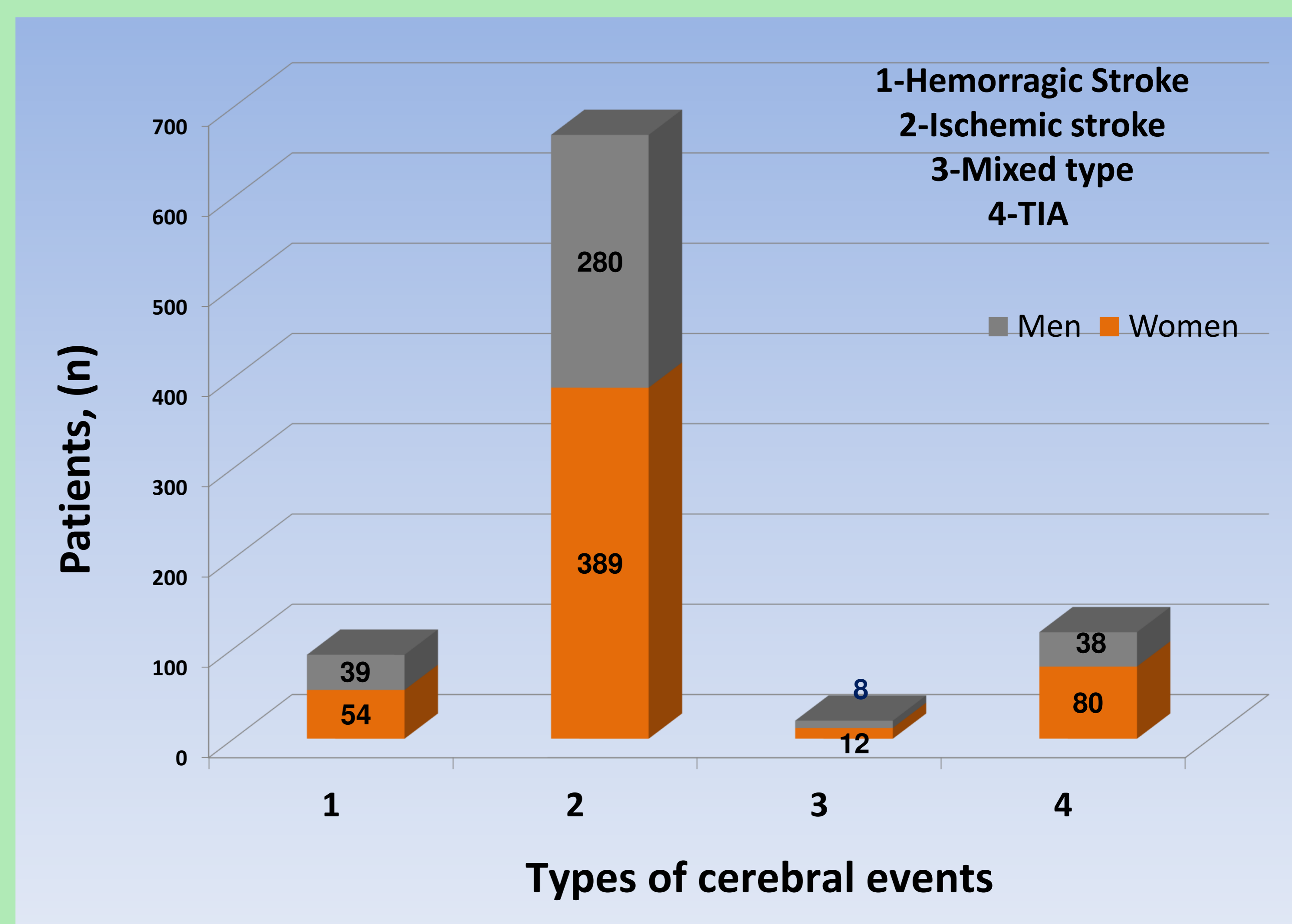


Figure 2. Incidence of different types of cerebral events

Average level of the hospital mortality during 2012-2017 period was 24,0% (Fig.3). There was a sharp of mortality increase in 2013 (34.3% of patients), that coincided with organization of the hospital “Vascular Center”, and following progressive decrease of this parameter in 2014-2017 period up to 19% ( $p$  for trend  $< 0.05$ ).

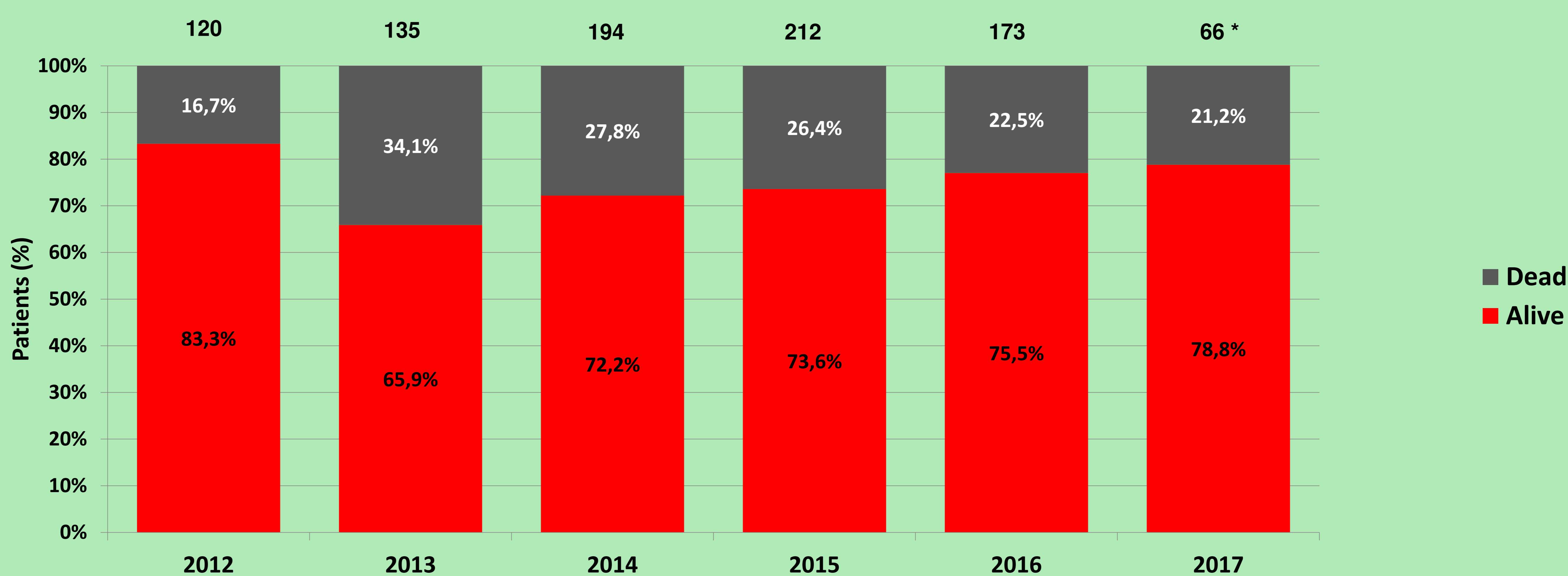


Figure 3. Dynamics of hospital mortality in included patients (2012-2017)

\* - data for 01-04.2017

**Conclusions.** The REGION study revealed a prevalence of elderly persons and women in group of patients with AS and TIA. CV multimorbidity (i.e. 2 and more CV diseases) was identified in 68.7% of cases. Organization of the “Vascular Center” led to the following significant decrease in hospital mortality in patients with AS and TIA.