Vasovagal reactions (VVRs) are the most common adverse events associated with blood donations” Narbey et al (2016).

Abstract:

BACKGROUND AND OBJECTIVE(S): Vasovagal reactions (VVRs) are the most common adverse events associated with blood donations. To assess the relative importance of VVR risk factors, a retrospective case-control study of severe immediate and delayed VVRs was performed.

STUDY DESIGN: Vasovagal reactions were defined as immediate when occurring at the transfusion site and as delayed when occurring outside the transfusion site and within 24 h following donation. VVRs with probable or certain imputability and moderate to death severity were considered. One control/case was drawn randomly from among donors without VVR. Explanatory variables (sex, age, body mass index (BMI), donation status, type of phlebotomy) as well as the matching variables (donation region, date) and the interaction term (sex and BMI) were integrated into the multivariate model.

RESULTS: In French hemovigilance data collected from 2011 to 2013, 8410 immediate and 833 delayed VVRs occurred among 8 834 214 donations. In multivariate analysis, occurrence
of immediate VVR was strongly associated with first-time donation (OR 4·34; 95% CI: 3·93-4·79, P < 0·0001) and the 18-24 age group (OR 2·24; 95% CI: 2·00-2·45, P < 0·0001) and of delayed VVR with women with a normal BMI (OR 7·31; 95% CI: 4·96-10·77, P < 0·0001), overweight BMI (OR 7·89; 95% CI: 4·84-12·87, P < 0·0001) or obese BMI (OR 3·72; 95% CI: 1·42-9·74, P < 0·0001), and in men with an underweight BMI (OR 6·39; 95% CI: 1·56-26·13, P < 0·0001). Apheresis was a risk factor for occurrence of both immediate and delayed VVR.

CONCLUSION: Our study highlights that first-time donation by a young person is particularly at risk of immediate VVR while a female donor is at risk of delayed VVR.

Reference:

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