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Universidad y Salud ARTÍCULO DE REVISIÓN

**Grupos sanguíneos y su relación con los niveles plasmáticos del Factor**

**de von Willebrand**

Blood groups and their relationship with plasma levels of von Willebrand Factor

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**Resumen**

**Introducción:** El tipo de grupo sanguíneo entre otros factores, influye en los niveles plasmáticos del Factor de von Willebrand (FvW), su actividad biológica podría incidir en el desarrollo de eventos trombóticos y hemorrágicos. **Objetivo:** Describir las características y los mecanismos de reacciones postrasduccionales del grupo sanguíneo que permiten la variación en la concentración plasmática del FvW. **Materiales y métodos:** Revisión teórico descriptiva de tipo documental. Las bases de datos consultadas fueron *Medline, Lilacs, ScienceDirect, Scopus, SciELO, Proquest, Ovid y Pubmed.* Como criterio de selección se incluyeron artículos en idioma inglés y español a partir del año 2010 y algunos anteriores como referente histórico. **Resultados:** Se describieron los principales mecanismos e investigaciones que evidencian la influencia del tipo de grupo sanguíneo ABO en los niveles plasmáticos del FvW, así como la estructura y función de dicha proteína. **Conclusiones**: Las concentraciones plasmáticas del FvW pueden depender del tipo de grupo sanguíneo, la edad, sexo, embarazo, ciclo menstrual, variación de proteínas y factores bioquímicos e inmunológicos. Se podría tener en cuenta el tipo de grupo sanguíneo de los pacientes como un posible factor predictor a futuro de complicaciones clínicas tanto trombóticas como hemorrágicas.

**Palabras clave**: Factor de von Willebrand; antígenos de grupos sanguíneos; proteína ADAMTS13; trombofilia. (Fuente: DeCS, Bireme).

**Abstract**

**Introduction:** The type of blood group among other factors influences the plasma levels of von Willebrand Factor (FvW) and its biological activity could influence the development of thrombotic and hemorrhagic events. **Objective:** To describe the characteristics and mechanisms of post-translational reactions of the blood group that generate variation in the plasma concentration of FvW. **Materials and methods:** A descriptive theoretical review of documentary type. The databases consulted were *Medline, Lilacs, ScienceDirect, Scopus, SciELO, Proquest, Ovid and Pubmed.* As a selection criterion, articles in English and Spanish were included beginning in 2010 and some previous ones as historical reference. **Results:** The main mechanisms and investigations that show the influence of the ABO blood group type on the plasma levels of FvW, as well as the structure and function of this protein were described. **Conclusions:** FvW plasma concentrations may depend on the type of blood group, age, sex, pregnancy, menstrual cycle, protein variation and biochemical and immunological factors. The type of blood group of patients could be considered as a possible future predictor of both thrombotic and hemorrhagic clinical complications.

**Key words:** von Willebrand factor; blood group antigens; ADAMTS13 protein; thrombophilia. (Source: DeCS, Bireme).

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