Obesity, pregnancy, and prophylaxis for venous thromboembolism

Respected Editor,

We appreciate Bshabshe *et al.*[1] for their noteworthy contribution to a subject that requires clarity in terms of standardized guidelines. The authors have drawn attention to the decreased understanding of venous thromboembolism (VTE) among the Aseer population. We believe this lack of awareness can be partly attributed to the limited knowledge of healthcare professionals about the management and prophylaxis of thromboembolic phenomenon. This may be due to the uncertainty that exists in current guidelines for VTE prophylaxis in certain patient populations. The recommendations for VTE prophylaxis from commonly followed guidelines by the American College of Chest Physicians (CHEST), American Congress of Obstetricians and Gynecologists (ACOG), and the Royal College of Obstetricians and Gynecologists (RCOG) are inconclusive. Palmerola *et al.*[2] have reported this disparity by applying these guidelines to filter patients qualifying for post-cesarean section pharmacologic prophylaxis. Under ACOG recommendations, only 1%; under CHEST recommendations 34.8%; and under RCOG recommendations 85% of patients qualify for receiving pharmacologic prophylaxis.[2] The significant difference in the proportion of individuals qualifying for prophylaxis calls for consensus in guidelines issued by these organizations.

Moreover, in the results reported by Bshabshe *et al.*,[1] a significantly lower number of respondents, only 9%, gave the correct answer of pregnancy being a risk factor for deep vein thrombosis (DVT). This is alarming as thromboembolic phenomenon including DVT and pulmonary embolism results in the greatest morbidity and mortality during pregnancy.[3] The authors do not discuss or assess the knowledge of obesity or high body mass index as a risk factor for developing VTE. It should be noted that as obesity is associated with impaired fibrinolysis, increased levels of fibrinogen, von Willebrand factor and factor VIII, and long periods of inactivity, it acts as a predisposing factor for the thromboembolic phenomenon, increasing the risk for VTE by 6.2 folds.[4] It is also pertinent to mention here that obesity influences the absorption, distribution, and renal clearance of low molecular weight heparins (LMWHs). In the context of this discussion, we would like to highlight the lack of evidence that exists regarding thromboprophylaxis in pregnant women who are also obese. This is crucial to consider as both pregnancy and obesity are independent risk factors for the development of the thromboembolic phenomenon. Moreover, in the United States, as over 50% of all pregnant women are estimated to be obese, the incidence of cardiovascular health risks such as VTE increases by several folds.[5]

Through this letter, we intend to highlight the uncertainty that exists in the current guidelines for VTE prophylaxis in obese pregnant women as well as the non-inclusion of this patient population in the reported literature. Moreover, we would also like to draw attention to the inconsistent evaluation of reasons pertaining to a possible lack of knowledge among physicians, and patients regarding VTE prophylaxis in this patient group. We stress the importance of conducting randomized controlled trials (RCTs) that can accurately evaluate the clinical effectiveness of weight-based and fixed-dose regimens of LMWHs for VTE prophylaxis in obese pregnant women. Studies that have been conducted address VTE thromboprophylaxis either in obese or pregnant women; we, however, call for RCTs that address the management of this phenomenon in both obese and pregnant women. These trials become long overdue and necessary, as in this particular patient group, the stakes are even higher; we risk not one but two lives.

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Conflicts of interest

There are no conflicts of interest.

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