



## 1. A COMPREHENSIVE APPROACH TO IMPROVING MANAGEMENT IN POSTPARTUM HEMORRHAGE

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**Introduction.** Postpartum hemorrhage (PPH) is a leading cause of maternal mortality and morbidity, which needs a vigilant approach for early qualified diagnosis and timely multidisciplinary management. Pregnant women at high risk for PPH require proper antenatal assessment. In cases of planned cesarean section (C-section), it is recommended a high level qualified surgical team to manage the clinical situation.

**Aim of study.** This research is aimed to analyze the evolution of PPH  $\geq 1000$  ml at the patients admitted in a tertiary perinatal center.

**Methods and materials.** A descriptive study was performed by assessing 78 cases with PPH. Medical history, clinical and paraclinical signs, and management algorithms were assessed.

**Results.** Patient age ranged from 21 to 30 years, majority being multiparous (71.2%). They had a high level of miscarriages and stillbirths (41.5%). Previous C-section was observed in 34.7% of cases. The blood loss were estimated between 1000-1499 ml in 45 cases (57.7%); 1500-2499 ml in 26 cases (33.3%), and HPP $\geq 2500$  ml in 7 cases (9.0%). The hemorrhage volume was measured by visual method, hemostatic materials and clots weighing. The diagnosis was established based on the 4T's rule. Placental pathology (51.7%) and deep laceration of birth canal (22.8%) were the main causes, especially in massive hemorrhages. The clinical management was performed according to Transfusion and volume resuscitation management for Massive Obstetric Hemorrhage Guideline. The correction of coagulation factors deficiency and anemia were important steps in PPH $>1500$  ml cases. Compression sutures (B-Lynch) were performed in 8 cases (6.8%), and 37 cases (31.4%) underwent hysterectomy for hemostasis. Re-laparotomy was required in all PPH  $\geq 2500$  ml cases. All patients developed moderate or severe anemia in postpartum period, and 33 cases (42.3%) with PPH $>1500$  ml were complicated with hemorrhagic shock. Multiple organ dysfunction syndrome (MODS) occurred in 7 cases (9.0%), hepatic and acute renal dysfunction being the main injuries. Disseminated intravascular coagulation (DIC) was noted in 9 cases (11.5%) in post-partum period, systemic inflammatory response syndrome (SIRS) complicated 22 cases (28.2%), immune and nutritional deficiencies (hypoalbuminemia, absolute lymphopenia  $<500$ ) determined in 14 cases (18.0%).

**Conclusion.** Placental pathology and deep laceration of the birth canal remain main causes of PPH. Timely and comprehensive correction of coagulation factors deficiencies and anemia, decrease the risk of MODS in postpartum period. PPH can lead to the post-partum complications, requiring an appropriate and individualized management, and a comprehensive approach.