

*Research Article***Factors predict Success of Intrauterine Tamponade in cases developed post partum hemorrhage****Hossam EL-Din Shawky, Ahmed S. Abd El-Malek, Reham R. Taha and Ramy A. Rabea Rewedy**

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**Abstract****Introduction:** Postpartum hemorrhage is the leading cause of maternal death worldwide, with an estimated mortality rate of 140,000 per year, or one maternal death every 4 minutes.**Aim of the work:** The aim of this study was to report the success rate of intrauterine balloon tamponade and to elucidate factors that influence the success rate. **Patients and Methods:** This study was carried out to evaluate the predictive factors for success of uterine balloon tamponade in managements of post-partum hemorrhage. **Results:** During the study period, 1,965 deliveries occurred at our hospital. A total of 470 cases (4.29%) of these women experienced a PPH within 24 h. A total of 77 cases (0.7%) women had a balloon tamponade as 71 cases (92.2%) with Bakri balloon insertion & other 6 cases (7.79%) with foley's catheter insertion. **Discussion:** Postpartum hemorrhage is the leading cause of maternal death worldwide, with an estimated mortality rate of 140,000 per year, or one maternal death every 4 minutes. PPH occurs in 5% of all deliveries and is responsible for a major part of maternal mortality (ACOG, 2006). **Summary:** Primary PPH is defined as excessive bleeding that occurs in the first 24 hours after delivery.**KeyWords:** AMTSL: Active management of third stage of labour, PPH: Postpartum hemorrhage, REC: Research ethics committee**Introduction**

Postpartum hemorrhage is the leading cause of maternal death worldwide, with an estimated mortality rate of 140,000 per year, or one maternal death every 4 minutes. PPH occurs in 5% of all deliveries and is responsible for a major part of maternal mortality (ACOG, 2006).

The majority of these deaths occur within 4 hours of delivery, which indicates that they are a consequence of the third stage of labour (Ramanathan et al., 2006).

Primary postpartum haemorrhage resulting from uterine atony is a major cause of maternal morbidity and mortality. Various prophylactic strategies have been used to prevent this potential life-threatening emergency. (Knight et al., 2013)

**Aim of the work**

The aim of this study was to report the success rate of intrauterine balloon tamponade and to elucidate factors that influence the success rate.

Minia maternity university hospital is the only public-sector tertiary teaching University Hospital in El Minia governorate, that serves as a referral centre for all the health facilities of nine general hospitals in nine big cities and its suburbs as well as the adjoining areas of rural territories distributed along 160 kilometres.

**Patients and Methods**

This study was carried out to evaluate the predictive factors for success of uterine balloon tamponade in managements of post-partum hemorrhage.

**Setting:**

Our study was cross section & observational study that was conducted prospectively in the labor ward of the department of Obstetrics & Gynecology, Minia Maternity University Hospital during period between 1<sup>st</sup> of Jun 2017 to 1<sup>st</sup> of Jun 2018 .

**Recruitment & Consent:**

Signed, informed or oral consent was obtained from all women or her relatives

according to their conditions at the point of recruitment to the study.

#### **Inclusion criteria:**

The study included women:-

Who admitted to our hospital With primary atonic post-partum hemorrhage or developed PPH after delivery at our hospital & uterine balloon tamponade was inserted after primary management of PPH include (uterin massage & uterotonic agents) had failed .

#### **Exclusion criteria:**

**The study not included women :-**

With only traumatic PPH without uterin atony .

With PPH due to morbid adherent placenta which couldnt be separated from uterus.

#### **Data collection:-**

Patient's details were taken from:-

History Taking: all women, were included

into the study, were subjected to medical history taking including; name, age, education level, residence, history of medications especially ecbolics or tocolytics or anticoagulants.

Past history of chronic medical disorders as (anemia, hemorrhagic diseases, cardiac diseases, severe chronic allergic conditions, hepatic or renal diseases).

#### **Results**

During the study period, 10965 deliveries occurred at our hospital. A total of 470 cases (4.29%) of these women experienced a PPH within 24 h. A total of 77 cases (0.7%) women had a balloon tamponade as 71 cases (92.2%) with Bakri balloon insertion & other 6 cases (7.79%) with foley's catheter insertion.

**Table (1): Showing Socio-demographic data**

Socio-demographic characteristics	Studied group (n =77)
<b>Age (years),</b> Range Mean $\pm$ SD	18 - 41 26 $\pm$ 5.9
<b>Duration of mariage</b> Range Mean $\pm$ SD	1 - 28 6.8 $\pm$ 5.8
<b>BMI</b> Range Mean $\pm$ SD	25 - 31 28 $\pm$ 3.7

\* **Continuous data represented by mean  $\pm$  SD.**

Age group rang from (18y to 41y), duration of mariage range from (1y to 28y), Most of cases were overweight with mean( BMI) 28 $\pm$ 3.7.

#### **Discussion**

Postpartum hemorrhage is the leading cause of maternal death worldwide, with an estimated mortality rate of 140,000 per year, or one maternal death every 4 minutes. PPH occurs in 5% of all deliveries and is responsible for a major part of maternal mortality (ACOG, 2006).

When bleeding fails to respond to conservative treatments, invasive intervention is necessary. Conventional surgical procedures consist of surgical ligation of uterine vessels, application of uterine

compressive sutures, hysterectomy or angiographic uterine artery embolisation combined with intensive care, depending on the clinical situation. (Olsen et al., 2013).

#### **Recommendations**

Use of balloon tamponade should be highly recommended in the guidelines of management of PPH due to its High success rate as conservative non invasive technique with less complications.

In PPH with uterine atony, balloon tamponade better to be used before the blood loss

reaches 1000 mL. In cases with excessive bleeding, the balloon could be inserted earlier.

Protocols for balloon use should now include timing instructions, inflation volume and option for using ultrasound (US) scan for its positioning. However, these findings need to be confirmed in a larger trial.

As regard technique of balloone insertion,a vaginal gauze should be used to better hold the balloon in place to prevent its expulsion.

Availability of long term follow up after balloon removal to detect its effect on fertility as example hysteroscopic study in the post- partum could appropriately evaluate intrauterine complications.

## References

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