

## Novel intrauterine vacuum induced haemorrhage control device; a favourable alternative treatment of postpartum haemorrhage

Samra Sohail, Zainab Rauf, Ifflah Ansari

Madam, maternal mortality is a serious health concern, with casualties amounting to 295,000 in 2017.<sup>1</sup> As of present, about 25% of all maternal deaths fall under a condition known as postpartum haemorrhage (PPH), which is defined as abnormal bleeding of more than 500 - ml post child birth; 80% of all PPH cases are attributed to an atonic uterus. Consequently, a stepwise progression is observed to achieve haemostasis, starting from compression therapy to uterotonics like oxytocin followed by uterine balloon tamponade and even surgical intervention as the last line of treatment.<sup>2</sup>

In their study, Dalton et al. introduce The Jada System, a novel intrauterine vacuum induced haemorrhage control device and evaluated its safety and effectiveness.<sup>3</sup> This novel innovation uses low- level intrauterine vacuum to assist physiological forces, collapse the uterine cavity and occlude blood vessels to control excessive bleeding. Moreover, the study showcased successful definitive treatment in 94% of the patients within an average of 3 minutes, minimal low-grade adversities, 98% investigators deeming it easy to use and majority recommending it for future treatment.<sup>3</sup>

The Jada System's rapid and early use renders it an exceptional treatment to PPH in comparison with alternatives like balloon tamponade that can only be used after a significant blood loss. Furthermore, with a success rate of 87%, the balloon tamponade can take up to 24 hours to control bleeding and carries numerous risks like rupture of the overfilled balloon, infections, cervical tears and vaginal lacerations.<sup>4</sup>

While tackling maternal mortality with the help of The Jada System, it is imperative to recognize that 94% of all

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3rd Year MBBS Student, Dow Medical College, Karachi, Pakistan.

**Correspondence:** Samra Sohail. Email: samrasohail1029@gmail.com

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maternal deaths occur in low and lower middle-income countries, therefore coherent and competent approaches to maternal health care must be introduced to developing countries around the world.<sup>1</sup> Pakistan is one such low-middle income country that reported a Maternal Mortality Rate (MMR) of 140 per 100000 deaths in 2017.<sup>1</sup> Additionally, in a 2002 study, Jafarey outlined lack of management, scarcity of medications, services, skills and blood banks to accommodate excessive blood loss as the major causes of continued maternal deaths due to PPH (52.9%) in the country.<sup>5</sup>

Considering The Jada System's high success rate in managing PPH, low — middle income countries like Pakistan can invest in the local production of this device in a cost- efficient manner. Such an incentive can prove to be a feasible and swift solution to obstetric emergencies in the region.

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