

Desaturation during airway management in pregnancy-related hypertension: Analysis of the Obstetric Airway Management Registry (ObAMR)



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ObAMR

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Introduction



ASOS showed that **maternal mortality** after caesarean delivery is **50 times greater** in Africa. In **South Africa**, more than 50% of perioperative maternal mortality is attributed to **failure to protect the airway**. This study evaluates the comparative **incidence and risk factors** for **desaturation** between patients with **pregnancy-related hypertension (PRH)** and **without PRH**.

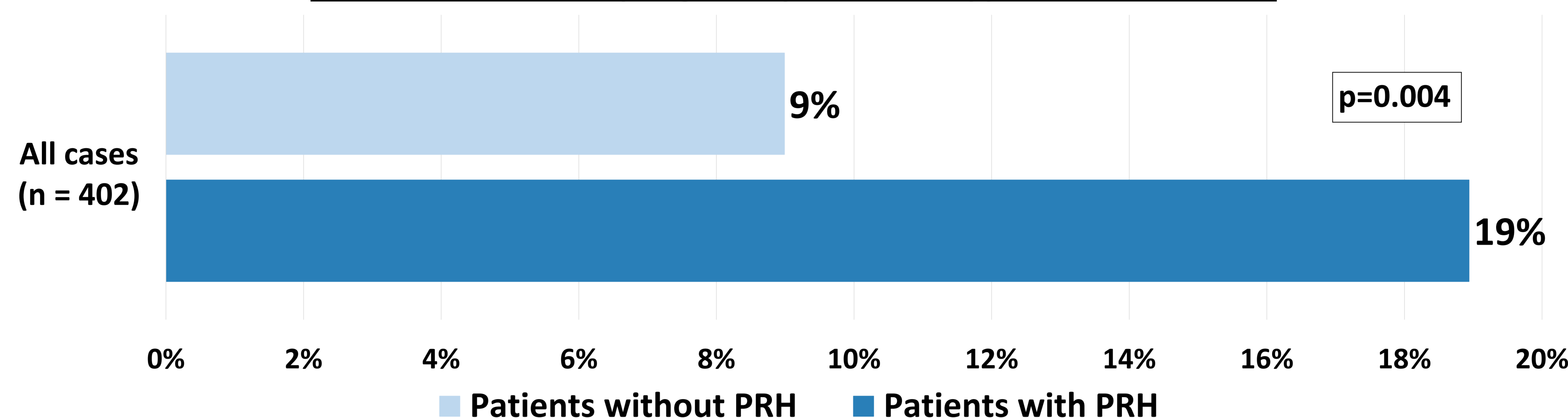
Methods

Preliminary analysis of the first 200 cases in the ObAMR demonstrated an **increased incidence of peri-induction desaturation (SpO₂<90%)** in PRH versus non-PRH patients (**22% vs 7% respectively, p=0.002**). Based on this risk difference, the next 202 cases were **prospectively** analysed to confirm the association.

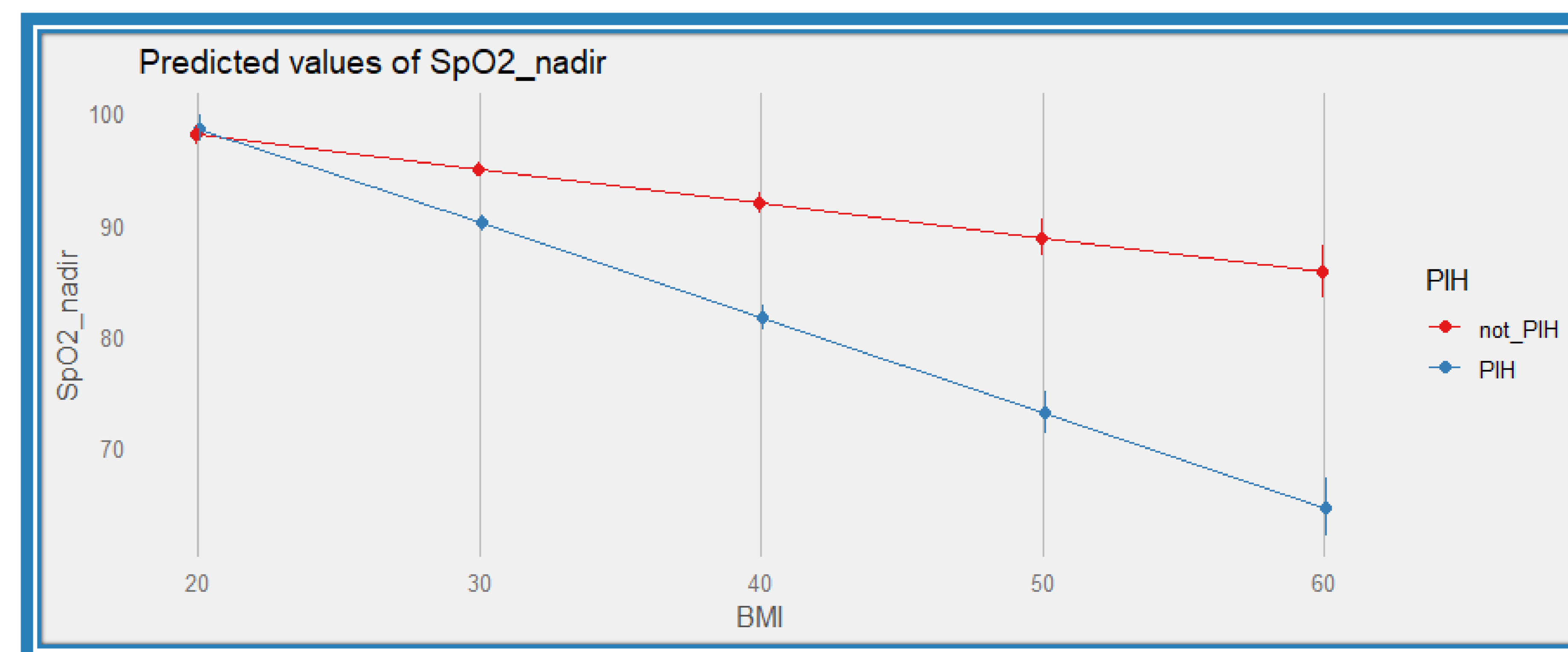


Results & Discussion

Incidence of hypoxaemia (desaturation to SpO₂ < 90%) in patients with and without pregnancy-related hypertension (PRH)



In the second cohort of 202 cases, **desaturation** occurred in 17% and 12% with and without PRH respectively (p=0.317), **compared to 19% and 9% in the combined 402 cases (p=0.004)**. Multivariable logistic regression revealed **odds of desaturation** in patients with **PRH increased 2.23 times (OR 2.23, 95%CI 1.17-4.26)**, and every **10 points of BMI increase** were associated with **108% increased odds of desaturation (OR 1.11, 95%CI 1.07-1.16)**.



Conclusion

1 in 5

mothers with **pregnancy-related hypertension desaturated** below 90% during airway management. They were **twice as likely** to suffer from **significant hypoxia** compared to patients without PRH. In this analysis, **BMI** was a strong **independent predictor of desaturation**.

Additional content



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<https://openairway.org/wamm2019-obamr-desat/>

Acknowledgements

The abstract of this poster has received an IAMS Well Lead award. Dr. M. Smit was funded by Armstrong Medical to attend WAMM.

