

A Rare Case: Vaginal Delivery with Forceps in Severe Epistaxis of Pregnancy

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Introduction

- Prevalence of epistaxis: 3x higher in pregnant women¹
- Pregnancy pathophysiology²
 - Affects nasal mucosa + mucociliary nasal transport time → vascular congestion, mucosal oedema and rhinitis.
 - Higher blood volume → vascular congestion → bleeding exacerbated
- Management of epistaxis³
 - Spontaneous resolution
 - Simple first aid measures or nasal packing
 - Surgical: ligation of the sphenopalatine artery (SPA)
 - Pregnancy termination: Emergency or elective Caesarean section (majority) due to maternal or fetal compromise.
- Only two case reports thus far in the literature reporting vaginal delivery after epistaxis^{4,5}.

We present a rare and challenging case of severe epistaxis resulting in a vaginal delivery with the aid of Neville-Barnes forceps (NBF) plus a good outcome for both mother and infant in a primigravida with no prior risk factors and low-risk pregnancy.

Discussion

- **First case report:** severe epistaxis & vaginal delivery with NBF & good outcome for mother and baby
- Theoretically, vaginal delivery seemed to be **contraindicated** in epistaxis.
 - Due to pushes and Valsalva manoeuvres required in second stage of labour exacerbating epistaxis
- From our case, consider the use of **instrumental delivery to aid in reducing maternal effort and Valsalva manoeuvres** to reduce the severity of epistaxis and yet allow mothers to deliver vaginally.
- Epistaxis associated with greater risk of postpartum haemorrhage (PPH)¹
 - **Underestimation of blood loss** and **signs of early hypovolaemic shock masked** due to cardiovascular compensation during pregnancy.
 - Important to **consider preparation and planning of potential PPH** in the management of severe epistaxis.
- **Early involvement** of the Ear, Nose and Throat (ENT) surgeon with the obstetric team led to favourable outcomes for the mother and baby

Conclusion

Vaginal delivery with the aid of instruments & careful supervision of labour process can be a viable option for mothers experiencing epistaxis in pregnancy.

References

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Case report



Patient

- 27-year-old female, G1P0, 39+3 /40
- Low risk pregnancy
- No significant past medical history
- No personal or family history of epistaxis or haematological issues
- Rx: Pregnancy multivitamins only.

History

Presented to emergency department with

- Sudden onset of heavy bleeding from both nares
- Four previous spontaneous episodes of epistaxis over the last few days
- Reporting of a few hundred millilitres (ml) of bleed per episode (not quantifiable)
- Bleeding refractive to simple measures
- Epistaxis only slowed down with insertion of two rapid rhino and topical lidocaine 2% with epinephrine (Co-Phenylcaine spray) + intravenous tranexamic acid (TXA).

Examination

- ENT team was contacted
- Bleeding source identified from left posterior medial turbinate via nose endoscopy
- All other examination was unremarkable.

Progress

- Two further episodes of epistaxis from left nostril > 90ml over next 12-hours period
- Haemoglobin (Hb) count decreased from 114g/L to 95g/L
- Epistaxis settled with multiple attempts of posterior packing with Rapid Rhinos, Nasopore and oral TXA 8-hourly

Outcome

- A healthy vigorous infant born with APGAR of 9¹ and 9¹⁰.
- Recovery: low Hb of 67g/L requiring two units of blood transfusion and iron infusion.
- No further epistaxis
- Discharged day 2 postpartum with baby

Post-delivery

- Major postpartum haemorrhage (Total EBL = 1400ml) from episiotomy + epistaxis
- ENT consultant called in overnight to cauterise bleeders in the left posterior turbinate and performed a left SPA ligation to arrest epistaxis.

Induction, labour process

- Patient was induced and progressed to full dilatation
- At pushing, sudden onset of rapid bleeding from left nostril despite Rapid Rhino pack in-situ.
- Patient started coughing and had recurrent expectoration of blood from mouth.
- Estimated blood loss (EBL) from epistaxis was 400ml.
- Vaginal exam: fully dilated, direct occiput-posterior, station +2, +1 caput. No descent with pushing.
- Patient assessed and suitable for a trial of instrumental delivery in operating theatre
- Decision for Neville-Barnes forceps (NBF) to decrease maternal Valsalva manoeuvre + blood loss from epistaxis
- Fetus delivered after three pulls and right medio-lateral episiotomy.

Decision for delivery was made due to

- Continued intermittent epistaxis
- Patient unable to tolerate nasal packing, reporting pain and breathing difficulties
- Falling Hb levels
- Option of an elective Caesarean Section discussed with the patient
- Vaginal delivery decided as the mode of delivery in the context of
 - Normally grown fetus
 - Appropriate maternal cephalopelvic parameters
 - Primigravida status, to preserve the option of future low-risk vaginal delivery