

Placenta Accreta Spectrum (PAS): Are we ready?

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Presented by:



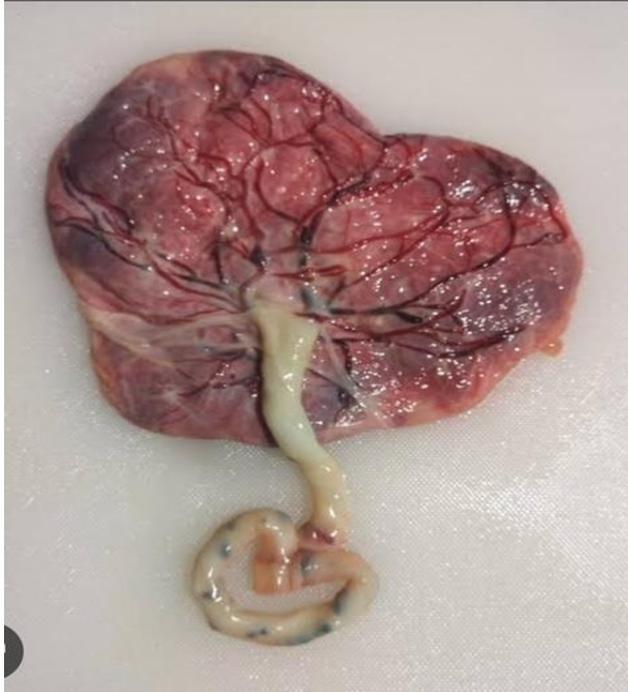
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Conflict of interest: none



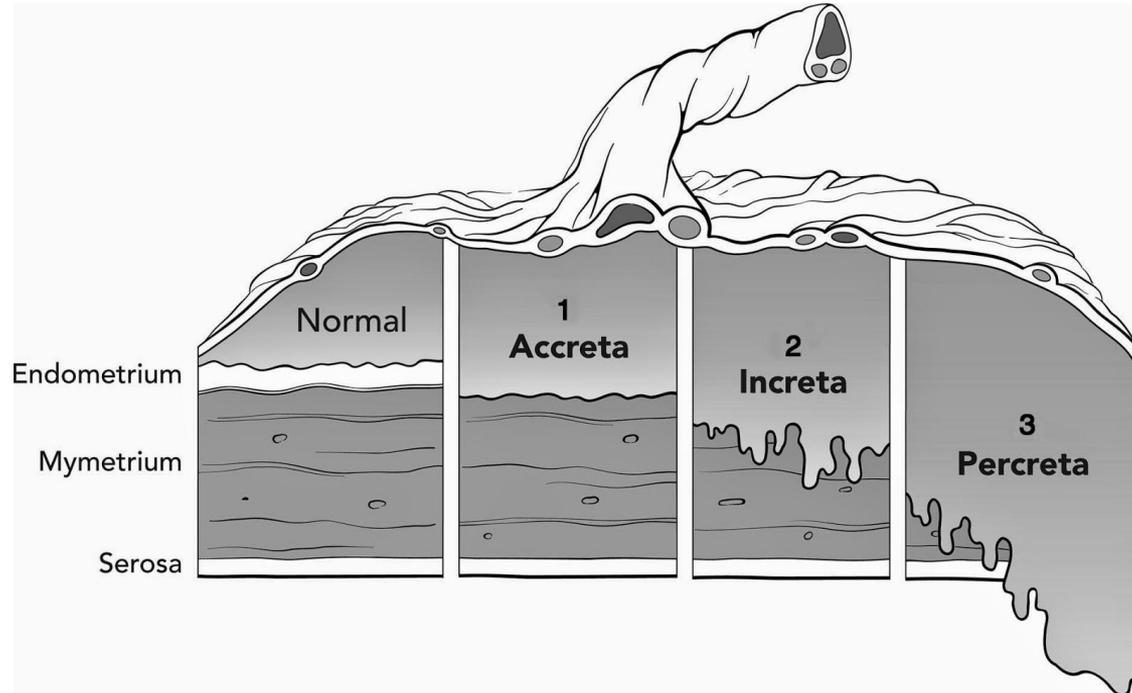
Placenta



The Dragon blood tree: “the tree of life”



The placenta is adherent to the uterus



Placenta Accreta Spectrum (PAS)



Placenta percreta with cervical involvement



PAS= Abnormal adherence of placenta

- Placenta accreta, increta, percreta (PAS)
- Manual removal of placenta for adherent placenta at birth
- Adherent products of conception after birth
- Caesarean scar ectopic pregnancy

How common is PAS in WA?

- 94 PAS which is about 10/year in WA – public sector only
- 74/94 PAS delivered at KEMH (2/3) – From both private & public
- 21/74 patients were not from Perth Metropolitan
- 11 patients with Placenta Accreta in 2023
- 24 patients in 2024 with confirmed PAS at KEMH

Source: WA Maternity Dashboard- WA public sector -data collection tool- 2016 to 2024

Scientific method: 1- Observation- 2015



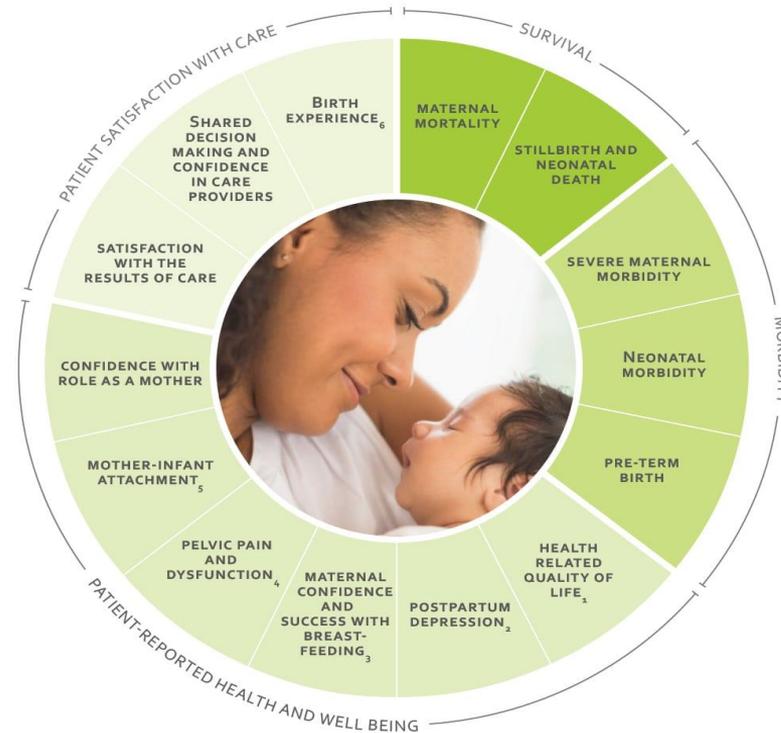
Listening carefully1/2

- “Unsure who to speak to”
- “As if no one really what my care was about”
- “Too many doctors and midwives”
- “I was not informed”
- “I did not see the surgeons before and after my surgery”
- “I felt lonely”

Listening carefully 2/2

- “I could not breastfeed”
- “When I came to the emergency centre 9 times, I saw 9 different doctors telling me different things all the time”
- “I had an operation to fix my bladder, and no one cared”
- “I don’t think I can have sex again”
- “I am seeing a psychologist now”
- “My entire family is suffering; I am not the same”

How did we do with her care?



Scientific approach 2: State the problem

Can we improve the journey and the outcome of women with Placenta Accreta Spectrum at KEMH?

Scientific approach 3: Collect variables 1/2

Qualitative research:

- 1st O&G KEMH Regional meeting on PAS 2016
- National session on The Morbidly Adherent Placenta- RANZCOG AGM- brainstorming and benchmarking- 2016
- Qualitative questionnaires to KEMH staff 2017

Scientific approach 3: Collect variables 2/2

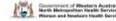
Quantitative and descriptive:

- 10 years retrospective study KEMH
- 72 patients
- 90% had at least a previous CS
- No maternal death
- Average gestational age at birth 35 weeks
- Mean Red Blood Cell units transfused 4

Management and maternal outcomes of placenta accreta

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1. King Edward Memorial Hospital for Women, 2. University of Western Australia



Abstract	Results	
As caesarean section rates have risen so too has the incidence of morbidly adherent placenta (accreta, increta and percreta - "MAP"), which carries a significant risk of maternal morbidity. ¹ There are multiple management approaches available. Most public patients in Western Australia are managed at King Edward Memorial Hospital (KEMH), the sole tertiary hospital for maternity services. Here we review the patient characteristics, clinical practice and outcomes related to the management of MAP at KEMH.	n = 72 noted	median (IQR) unless otherwise
To determine the demographics, management and outcomes of women with MAP at KEMH.	Maternal age (<i>years</i>)	33.4 (29.1-37.6)
	Parity	2 (1-3)
	Previous C/S - n(%)	65 (90.3%)
	Median no. of previous C/S	2 (1-3)
	Placenta praevia	
	Major - n(%)	53 (73.6%)
	Minor - n(%)	8 (11.1%)
	No - n(%)	11 (15.3%)
	Gestational age at delivery	35 ⁺² (33 ⁺¹ -36 ⁺⁵)
	Mode of delivery	
Classical CS - n(%)	57 (79.2%)	
LUSCS - n(%)	13 (18.1%)	
SVD - n(%)	1 (1.4%)	
TOP (hysterectomy) - n(%)	1 (1.4%)	
Estimated blood loss (<i>ml</i>)	1800 (1200-3000)	
No. units transfused (n=38)	4 (2-8.25)	
Haemoglobin drop (<i>g/L</i>)	29 (21.5-38.75)	
Hysterectomy		
C/S hysterectomy - n(%)	51 (70.8%)	
Delayed hysterectomy - n(%)	2 (2.8%)	
No - n(%)	19 (26.4%)	
Length of ASCU stay (<i>days</i>)	2 (1-3)	
Histology		
Accreta - n(%)	15 (32.6%)	
Increta - n(%)	14 (30.4%)	
Percreta - n(%)	17 (37.0%)	
Discussion		
<p>Compared to previous data from our hospital, there has been no significant increased in the incidence of MAP in the past 15 years.¹ There were no maternal deaths recorded in this period. 66 had a surgical finding of MAP. Placental removal was attempted in 27 (40.9%). Of these, 12 required caesarean hysterectomy, 15 had the uterus left in situ, of whom 12 had successful placental removal and 3 had placental tissue left in situ. Of these 3, one returned to theatre that day for hysterectomy due to haemorrhage. One patient had her placenta left undisturbed and the hysterectomy closed ('expectant' management). She had a delayed hysterectomy due to haemorrhage. In 62.0% of cases, a gynaecological oncologist was present at surgery. There was no significant difference in intraoperative blood loss, units of blood required, drop in Hb or length of ASCU admission. They were more likely to have a hysterectomy at the time of delivery (RR 1.68, 95% CI 1.14 – 2.49, p=0.002), and less likely to have an attempted removal of the placenta (RR 0.38, 95% CI 0.22 – 0.65, p<0.001). 6 (8.3%) required transfer to another hospital for management of complications (haemorrhage, infection, bowel obstruction). Women undergoing emergency CS (n=19) compared to elective (n=52) had greater blood loss (p=0.010), longer ASCU admission (p=0.011), and required more units of blood (p=0.007). There were no differences in hysterectomy rate or the presence of a gynaecological oncologist at delivery.</p>		

Contact: Sebastian.Leathersich@health.wa.gov.au

References: 1. Wu S et al. Abnormal placentation: twenty-year analysis. AIOG. 2005; 2. Armstrong CA et al. Is placenta accreta catching up with us? ANZJOG. 2004

Scientific Approach 4 : Formulate hypothesis

The optimal functioning of a multidisciplinary team will improve the journey and the outcome of the patients with PAS at KEMH

The reality

No budget for placenta accreta, no extra staff or time allocated

Limitations of KEMH: no interventional radiology, no intensive care unit,
no other surgical specialities on site

Strength: quality and interest of our staff

Reorganisation of the clinical teams

January 2018

“KEMH Placenta Accreta Team”





Scientific approach 5: Design the experiment

- Measure and improve the patient's journey and outcomes
- Create a sustainable functional multidisciplinary team
- Build and consolidate clinical expertise
- Robust governance (guidelines, communication, data collection, audits, research, education)

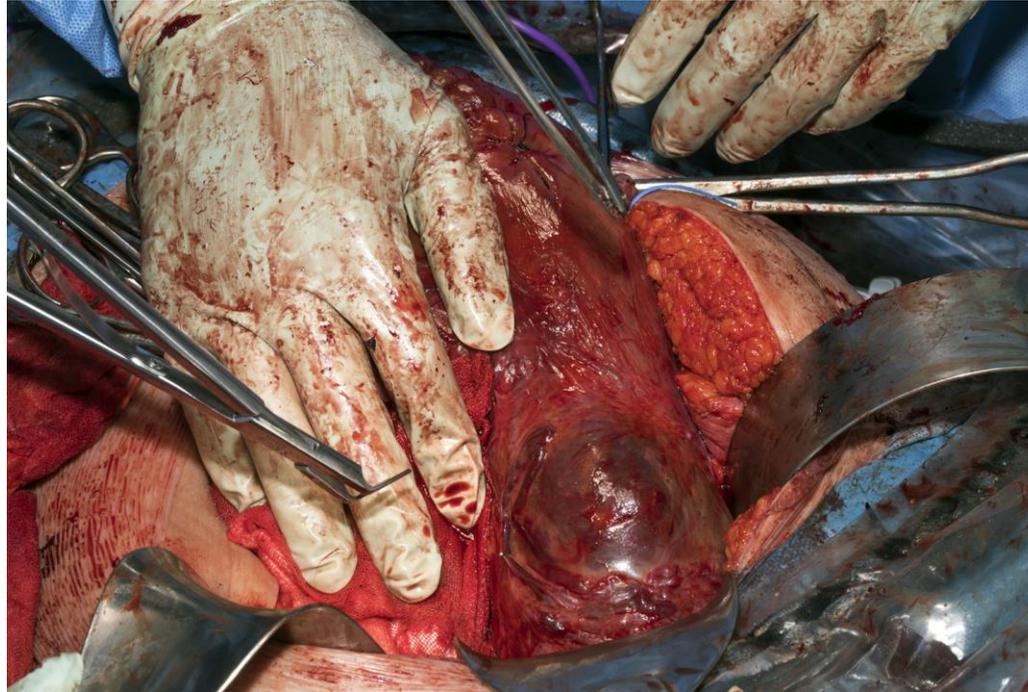
Scientific approach 6: Results- the journey in 2021

- Didi was G4P1- 35 years old- Nurse- 24 weeks pregnant- referred by another metro hospital for anterior low-lying placenta covering the cervix (placenta praevia) and suspected placenta accreta
- 2 early miscarriages (D&C) and 1 previous C/S 2 years ago in active labour
- Spontaneous pregnancy
- No other concern this pregnancy to date

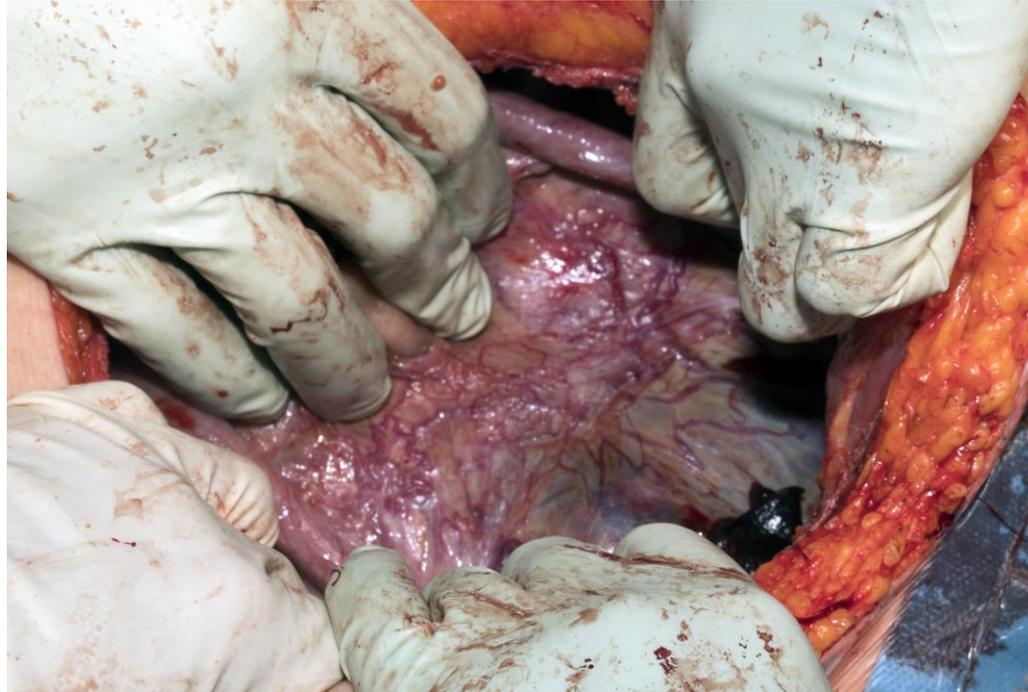
Why is it different to a normal CS, Doc?

- Neovascularisation – looks different every time
- Friable tumour expanding towards surrounding structures
- Fast bleeding (up to 800ml/mn)

D: What does it look like, Doc?



Me: It can also look like this



D: My last Caesarean section was ok Doc



Me: Yes, but ... (in my head)

- CS is associated with an increased risk of maternal mortality and severe acute morbidity and a higher risk for adverse outcomes in subsequent pregnancy compared with vaginal birth.
- After a CS, subsequent pregnancies show increased risks of hysterectomy, abnormal placentation, uterine rupture, stillbirth, and preterm birth
- A higher frequency of bleeding, need for blood transfusion, adhesions, intraoperative surgical injury, and hysterectomy occurred with increasing number of CSs.

Sandall et al Lancet 2018; 392: 1349-57

Caesarean sections rates in Australia

- 15% in 1990
- 32% in 2011
- 38% in 2021
- Estimation 50 % in 2030

D: Why me, Doc?

- Previous caesarean section and current Placenta Praevia (low lying placenta)
- Previous praevia
- Previous accreta
- Uterine surgery
- Previous retained placenta
- IVF, smoking and age above 35

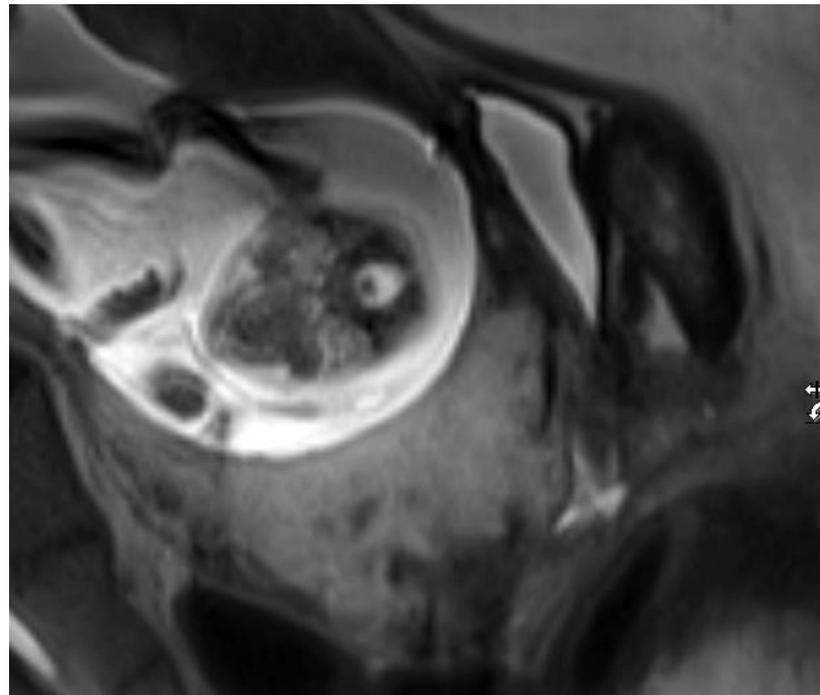
D: Why do people die, Doc?

- Lack of antenatal suspicion
- Lack of recognition
- Emergency presentation/ **BLEEDING**
- Wrong surgery- cutting through the placenta/ **BLEEDING +**
- Uncontrolled pulling of the placenta/ **BLEEDING ++**
- Delay in decision to call for help/ **BLEEDING +++**
- Delay in decision for hysterectomy/ **BLEEDING ++++**
- Attempt to perform standard hysterectomy/ **BLEEDING +++++**
- Coagulopathy/ Hypothermia/Hypovolemic shock...
- ...

D: So, what will happen next Doc?

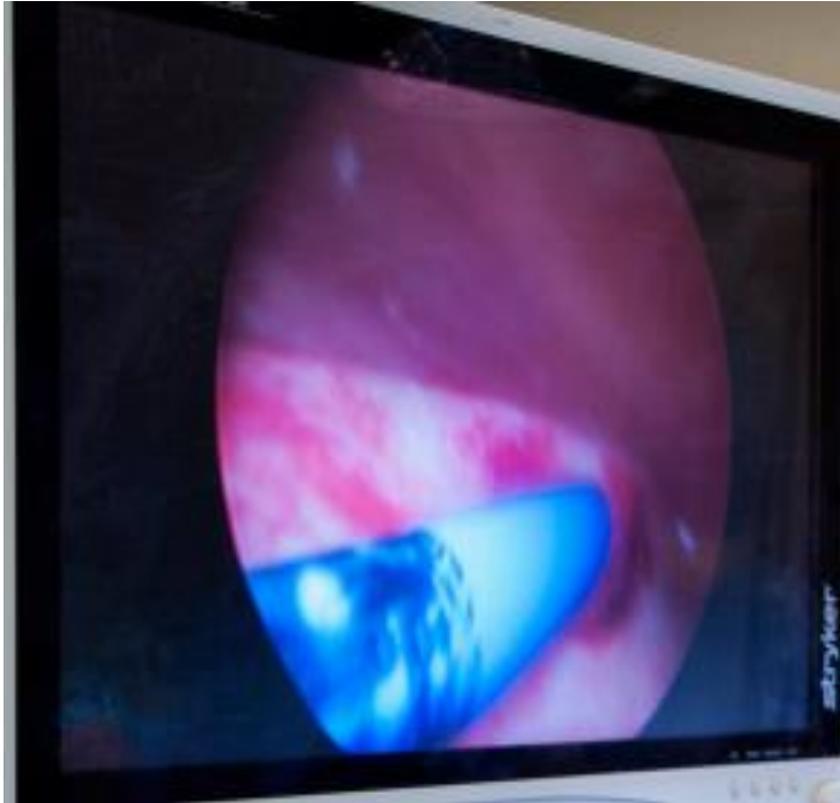
- On-going normal antenatal care
- Safety netting- emergency management
- Optimisation of haemoglobin and iron levels
- Imaging (repeat USS +/- MRI)
- Opportunity to engage with the team
- Decision on timing of delivery
- Consents
- Surgery
- Post-operative care (mother and baby)

D: What is on the picture, Doc?

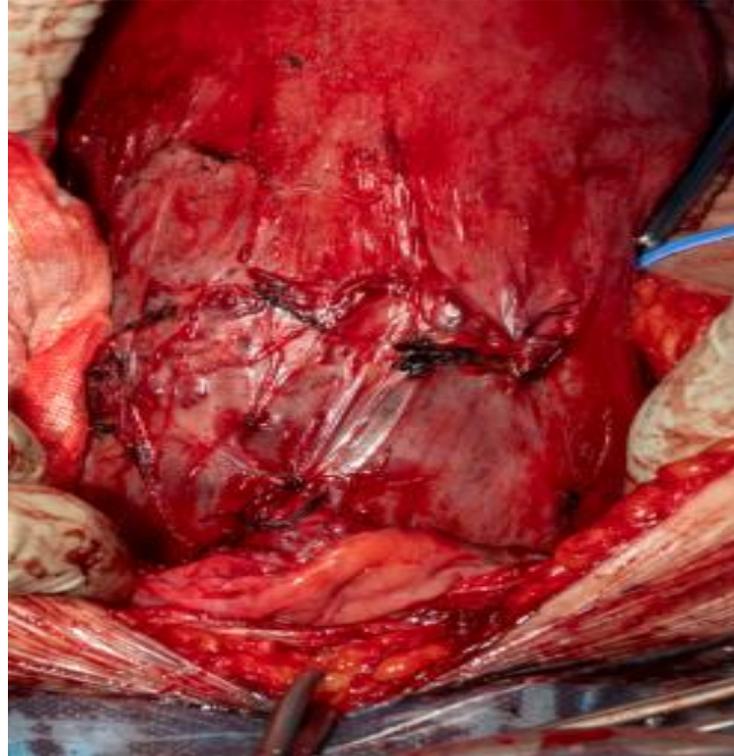


What will happen at surgery, Doc?

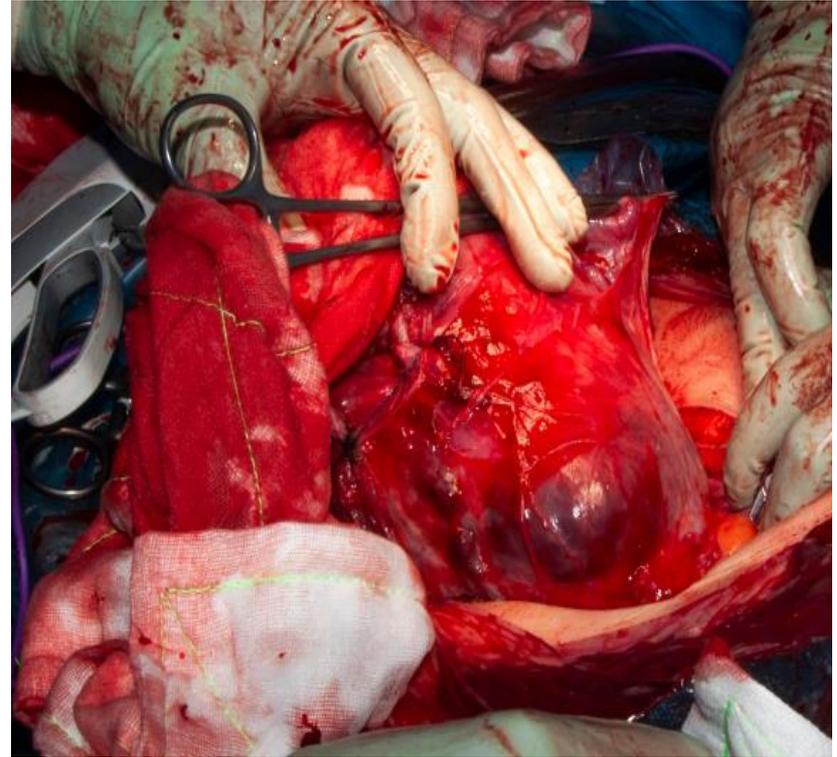
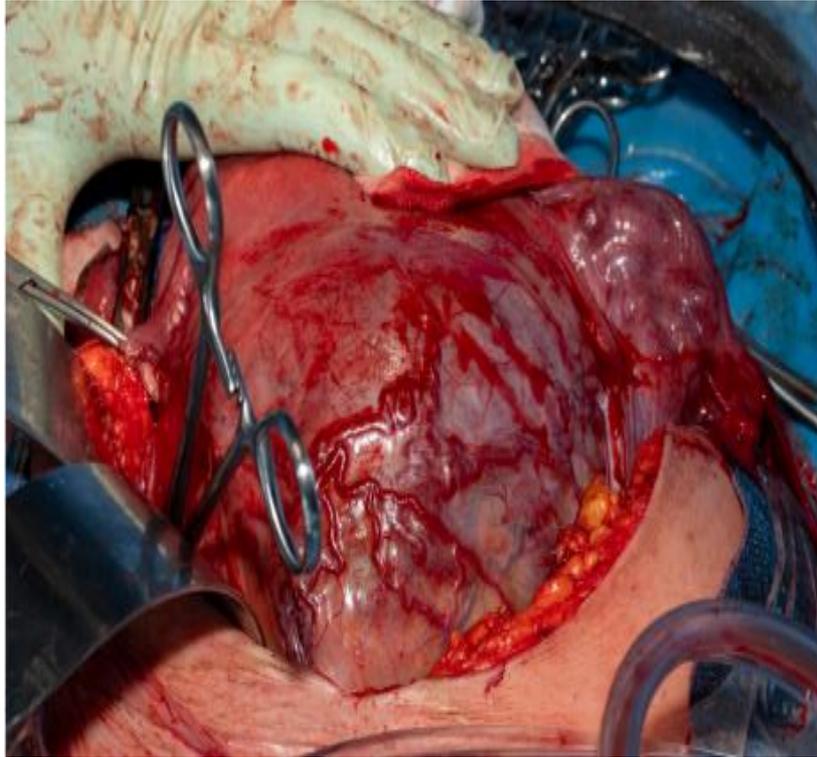
- Type of Anesthesia/ Elective or Emergency
- Check the bladder and put catheters in the ureters for identification
- Access- midline abdominal incision
- Avoid to cut through or to forcefully pull the placenta
- Expose the pelvic structures in a tight space with friable tissue
- Decision to remove the uterus with the placenta or else
- Recognise the vessels and control the haemostasis
- Dissect the bladder and the ureters +/- repair the bladder
- En-bloc hysterectomy
- Check everything before you close up (bleeding, bladder, ureters)

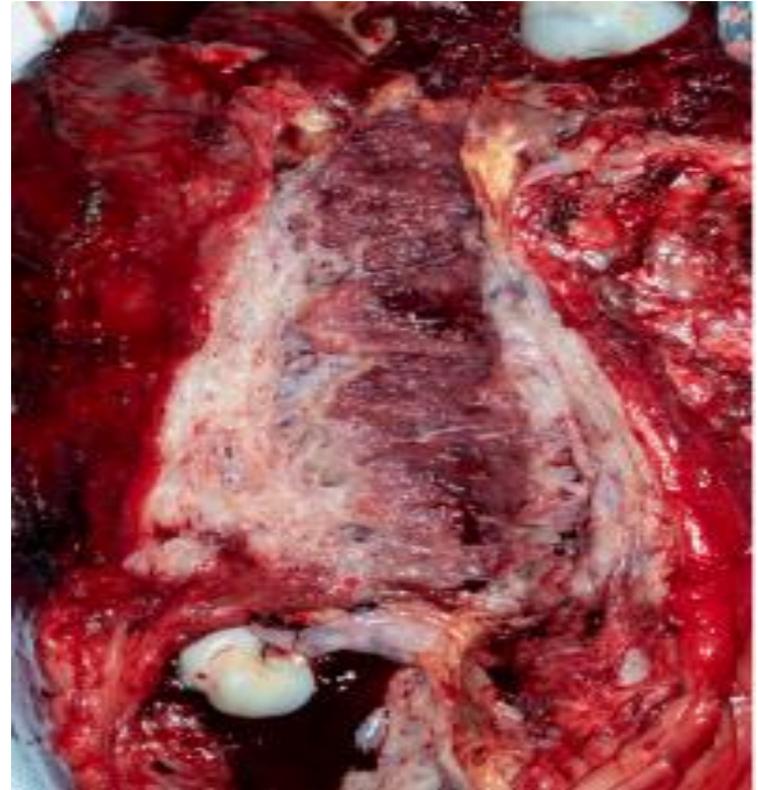


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Patient's feedback



Facebook

<https://www.facebook.com/groups/previaaccretaausnz> ▾

Placenta Previa & Accreta Support - Australia & New Zealand

WEB This is a **group** of **Australian** and New Zealand women that are currently pregnant or have been through a pregnancy with Placenta Previa and/or **Accreta**. We are here to support, ...

Placenta Previa & Accreta Su...

A support group for women who were diagnosed with Placenta Previa, Placenta ...

Placenta Previa & Accreta Su...

This is a group of Australian and New Zealand women that are currently ...

Scientific approach 6: Result clinical outcome

- Number of RBC units transfused ad-hoc care (2006-2014) was 4
- Number of RBC units transfused PAT care (2018/-2024) was 1.8

Scientific method 7: Analysis and Conclusion

- Measure and improve the patient's journey and outcomes: Yes
- Create a sustainable functional and kind multidisciplinary team: Yes
- Build and consolidate clinical expertise: Yes
- Robust governance (guidelines, communication, data collection, audits, research, education): Yes

Challenges ahead

- An increasing numbers of families will be affected: can we change this or is it too late?
- Increasing demand on the KEMH service
- Training of surgeons (low surgical number, high complexity)

Merci pour votre aimable attention

