HEMORRHAGIC OVARIAN CYST
A CATASTROPHY

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Introduction

- Ovulation is a physiological monthly event in women of reproductive age.
- Haemorrhage into ovarian cysts(corpus luteum) is a frequent and potentially life threatening complication in women on anti coagulation therapy.
- Its presentation is variable depending on the extent of the haemorrhage but it can be massive requiring surgical intervention and blood transfusion.

A 19 year old unmarried girl presented to emergency room on 13/12/14 at 10 pm with

- dull lower abdominal pain since 3 days,
- associated with fever and vomitings since 2 days.
- shortness of breath since 1 day.
- Her last period was 1 month back.
- There were no urinary or bowel symptoms.
- History of mitral valve replacement 1 year back for severe Mitral regurgitation (Mitral valve prolapse) diagnosed at 7 yrs age at Gandhi hospital.

- She was anticoagulated with tab. Acitrom 2mg/4mg on alternate days & on penidure prophylaxis.
- On examination pallor+++,
- Pulse-110 beats/mn,regular in rhythm,low in volume,
- Blood pressure - 90/60mm of Hg, 5 L of oxygen to maintain saturation,
- H/L-S1 S2+, mitral area S1 click +,
- P/A- distension + ,tenderness & guarding +

- USG- Right hemorrhagic cyst-6.7x5.2cm. Gross ascites.
- Paracentesis- blood aspirated.
- Urine pregnancy test- negative

Date13/12	Hb	WBC	platelets	PT	INR	APTT
9.00AM	4.6	4700	1.58 LAKHS	60 SEC	5.15	
10.30 PM	3.3	6200	1.4 LAKHS	>70 SEC	>10	84 SEC

MANAGEMENT

She was supported with blood &blood products and antibiotics.

Inj vit K1, 5 mg given intravenously slowly over 30 minutes

.

PRE-OP	4 PACKED CELLS,5 FFP'S
INTRA-OP	1 PACKED CELL, 2 FFP'S
POST-OP	2 PACKED CELL, 4 FFP'S

PT	25.4
INR	2.24
APTT	38.5

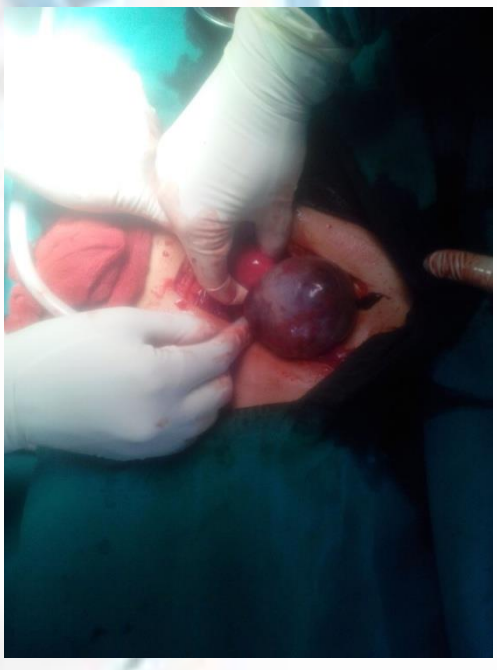
Exploratory laparotomy under general anaesthesia -

3.5 litres of haemoperitoneum+,500gms clots+,

uterus, both tubes &left ovary normal

Rt hemorrhagic cyst of 6x7 cm involving rt ovary

Rt oopherectomy done.



PT	**17.4 SEC**
INR	1.44

Anti coagulants started after 24 hrs.

post op –uneventful.

Discussion

MANAGEMENT OF ANTICOAGULANT ASSOCIATED BLEEDING

- **Stop the anticoagulant therapy,**
- **Rapid reversal of anticoagulant effect-**

VIT K1	2.5-5mg,iv	Limitations- anaphylaxis
FFP'S	15 ml/kg body wt	Volume overload, infection
PCC'S	25-100u/kg body wt	May not adequately correct
FACTOR VIIa	10-90mcg/kg body wt	Very short half life

Improve patient general condition –give packed cell transfusion to improve Hb%

- **Address mechanical causes of bleeding.**

Home
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Bleeding risk and the management of bleeding complications in patients undergoing anticoagulant therapy: focus on new anticoagulant agents

Mark A. Crowther1 and
Theodore E. Warkentin2

MANAGEMENT STRATEGIES FOR OVARIAN CYST HEMORRHAGE

Expectant management;

Surgical intervention- Ovarian electro-coagulation,
cystectomy,
wedge resection, and
ovarian reconstruction.

Oopherectomy

PREVENTION

Risk factors for ovarian hemorrhage in patients on anticoagulants.

- younger age(early period after menarche)
- Inappropriate dosage of anticoagulants
- Previous episode of bleeding
- On drugs which interact with anticoagulant metabolism
- In women on anticoagulation corpus luteum hemorrhage can be fatal in 3% to 11% of cases and may recur in nearly 25% to 31% , even when INR is still within or below the therapeutic range

Stenchever M et al.: **Comprehensive gynecology**. 5-th edition. USA, Mosby, pp 460-461, 2007. Spinelli C, Di Giacomo M, Mucci N and Massart F: **Hemorrhagic corpus luteum cysts: an unusual problem for pediatric surgeons**. *J Pediatr Adolesc Gynecol* 2009, **22**:163-7. | Article | PubMed Crétel E, Cacoub P, Gompel A, Durand JM and Piette JC: **Ovarian hemorrhage with hemoperitoneum leads to complication of oral treatment using indirect anticoagulant administered by the oral route**. *La Revue de Médecine Interne* 2000, **21**: 428-434. | Article

- Ovulation inhibition --- a challenge

DRUG	EFFECT ON OVULATION	LIMITATIONS
Low estrogen COC's	Consistently inhibits	Not recommended by WHO in v/o thromboembolism
POP's(cerazette)	Consistently inhibits	thromboembolism
Norethindrone(micronor) 0.35 mg	Inhibits ovulation	inhibits ovulation only in about 30% of the times
LNG-IUS	Doesn't inhibit	
IM DMPA	Consistently supresses	Loss of BMD &water retention.
Progestin implants	Consistently suppresses	Bleeding and hematomas at insertion site
GnRH analogues	Pseudomenopause status	High cost, osteoporosis.

conclusion

- ovulation related ovarian bleeding should be prevented by inhibition of ovulation in those women on anticoagulation who suffered a significant bleeding
- Progesterone only pills,IM DMPA can be used to inhibit ovulation, but needs close monitoring.
- newer anticoagulants fondaparinux , idraparinux, lepirudin, argatroban, and bivalirudin developed to overcome these limitations do not have specific antidotes
- Additional research on reversal agents or techniques for the newer anticoagulants is needed, including adequately powered clinical studies.


THANK YOU