DEEP VENOUS THROMBOSIS IN PREGNANCY

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SUMMARY

The increased incidence of thrombo-embolic phenomenon during pregnancy/ purperium has been a source of anxiety. The clinical course and management of 4 patients with femoral vein thrombosis during pregnancy/puerperium has been reviewed here. Doppler was used in all patients to confirm the diagnosis. One patient had doubtful pulmonary embolism but had an uneventful recovery. Intravenous followed by subcutaneous heparin therapy was given to 2 patients and the other 2 received low dose aspirin as a prophyaxis due to low platelets / prolonged prothrombin time. All the patients had an uneventful recovery. Follow up of one patient on Doppler showed resolving thrombus after 8 weeks of therapy and the other 3 patients are lost for follow up.

INTRODUCTION

For centuries, physicians have recognised the increased incidence of the thrombo - embolic phenomenon during pregnancy/ puerperium (Villasanta U.1965,). This complication has always been a source of anxiety because its consequences are lethal for the expectant mother and fetus. The accurate diagnosis and prompt treatment are essential during pregnancy but it has its own dangers and hence limitations. Four patients with deep vein thrombosis during pregnancy have been reviewed here to highlight the benefits of the management.

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MATERIAL AND METHOD

We had been associated with 4 patients with femoral vein thrombosis during pregnancy/puerperium over a period of 1 year from February 1992 to January 1993 at K.E.M. Hospital, Bombay. All patients were managed in consultation with surgical unit. Additional medical intensive care unit

services were utilised for a patient of doubtful pulmonary embolism as a complication. The clinical course and management of these patients is tabulated as follows:

DISCUSSION

The most dreaded complication of venous thrombosis during pregnancy is pulmonary embolism, which is an important cause of maternal mortality. (Leading article BMJ1979, Williams Obstetrics 1989). The post phlebitic syndrome also needs attention. (Kakkar V.1975) This means that the disease must be accurately detected at an early stage, so that the treatment is totally successful.

The ultrasonic (doppler) study is an ideal diagnostic method, as it is simple, quick and non-invasive. (Kakkar V.1975). It was used in all our patients for diagnosis. Electrical impedence plethymoraphy though simple, safe and non - invasive has not been adequately studied during pregnancy. (Bonnar J.1977). In an acute stage, heparin is the drug of choice, as it does not cross the placenta and does not appear in breast milk. Plasminogen activators like streptokinase, urokinase has a role in patients with complications only like pulmonary embo-

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NAME	HISTORY	CLINICAL EXAMINATION
1.Rajashree 19 yrs	Primi on 3rd post partum day Pain/swelling/difficulty in walking Rt lower limb—last 15 days	O/E Rt thigh: Antero-medial aspect: tenderness, patchy discolouration, odema, cellulitis near inguinal ligament Distal pulse feeble.
2. Hema 26 yrs	Primi (38 weeks pregnant) Pain/swelling: Rt lower limb last 15 days	O/E Rt thigh: Medial aspect: tenderness, odema, induration near inguinal ligament Bilateral pedal odema present Obstetric Exam: Normal
3. Shanta 23 yrs	Primi (32 weeks pregnant) with Threatened preterm labour Pain/swelling Lt lower limb on Day 6 of admission not responding to analgesics/anti inflammatory.	O/E Lt thigh: Antero-medial aspect: tenderness, odema, induration, redness warmth near inguinal ligament
4.Celina 22 yrs	Primi with Full Term Twin pregnancy Adm in ICU-Breathlessness 2 days Pain & Odema Lt lower limb 30 days	O/E Pulse-124/min,RR-36min, BP - 80/60mm of Hg. Lt.thigh:Blister 15cm.in diam. on antero-medial aspect of thigh with oedema, warmth, bluish hue Dorsalis pedis feebly felt Obst Exam: Normal Twin Pregnancy

INVESTIGATIONS	TREATMENT	
1.Hb 10.5gm% BT/CT normal Platelet count:1.5 lacs/cu.mm PT: 12/13 secs Doppler: Rt Femoral Vein Thrombus	Local:Leg elevation, elastocrepe bandage, Mag.Sulphate Syst:E-mycin - 2 days Heparin IV - 5 days Inj. Vit K - 5 days	FTND at Baramati prior to admission Uneventful recovery after treatment
2. Hb 11gm% Platelet count:90,000/cumm BT/CT normal PT: 15/18 secs Sr Fibrinogen: 218 mg% Doppler: Rt femoral vein thrombus with decreased popliteal, femoral blood flow	Local:Leg elevation, glycerine Mag. sulphate Syst:T.Aspirin 150 mg daily	Emergency LSCS Female - 2.8kg. Uneventful recovery
3.Hb 11 gm% Platelet count: 95,000/cumm BT/CT normal PT: 15/13 secs Doppler:Lt femoral vein dilatation of 1.6 cm with echogenic areas sugg of thrombus. No e/o of decreased blood flow.	Local:Leg elevation, glycerine Mag. sulphate Syst:E-mycin - 2 days Anti-inflammatory - 5 days T.Aspirin 150 mg daily	Emergency LSCS Female - 2.6 kg. Uneventful recovery
4. Hb 6.5 gm% Rh Negative Platelet count:3 lacs/cumm. PT: 17/13 secs X-ray chest-Lung congestion Doppler: Lt Femoral Vein thrombus ? Pulmonary Embolism	Local:Leg elevation, glycerine Mag. sulphate Syst:Cefotaxime, Amikacine, Metrogyl - 7 days Aminophulline - 7days Heparin: IV - 5 days followed by SC route. Rapid digitalisation Dopamine drip	F.T.Normal Twin Delivery: Female - 2.4 kg. Female - 2.1 kg. Skin grafting over blister site Uneventful recovery

tion, because it can result in massive post partum haemorrhage. It was not needed in our patients of doubtful pulmonary embolism. Literature shows successful surgical removal of thrombus during pregnancy, though its superiority has not been established. (Bonnar J. 1977)

Prophylactic treatment is needed: ([illegible] 1989)

1) In patients treated for acute venous thrombosis for remainder of pregnancy, labour and post delivery upto six months.

2) In patients during current pregnancy with an already established diagnosis of venous thrombosis during previous pregnancy or non pregnant state.

Low dose subcutaneous heparin therapy for prophylaxis has the advantage of being self administered. High cost and avoidance of regional anaesthesia are its disadvantages. During or 12 hours prior to labour, heparin therapy should be temporarily suspended. Dextran infusion should be given during labour, since it is safe for mother and fetus and has no side effect of hemorrhage. It was not used in any of our patients. Low dose aspirin is especially useful in patients with low platelets and an elevated prothrombin time. Its long term use should be minimised upto 36 weeks of gestation. It was used in two of our patients as prophylaxis. For lactation suppression, estrogen preparations should be avoided.

CONCLUSION

Doppler is the ideal method of confirming thrombus during pregnancy. The carefully controlled treatment with heparin offers the best chance of successful outcome to the pregnancy. Oral anticoagulants for prophylaxis has a limited role. Labour, epidural anaesthesia and surgery during pregnancy favours the use of Dextran. Low dose aspirin can be used as a prophylaxis in presence of low platelets and an elevated prothrombin time.

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