# Anesthetic Management of a Patient with Chronic Renal Failure and Menorrhagia Posted for Emergency Therapeutic Curettage – A Case Report

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## ABSTRACT

**Introduction:** Chronic kidney disease (CKD) is defined as the existence of an estimated glomerular filtration rate (eGFR) of less than 60 ml/min per 1.73 square meters. The decrease should be persisting for three months or more. Anemia and coagulation disorders are part of the multiple system involvement in these cases.

**Case report:** We present a case of abnormal uterine bleeding in a 47-year-old female CKD patient who presented with anemia (Hb of 7.4 gms/dl) for emergency curettage. The creatinine was 4 mg% and she was not on any dialyses. She was on nifedipine and thyroxine as oral tablets. She was a case of subclinical hypothyroidism on thyroxine supplements Injection pantoprazole was given 30 minutes prior to any sedatives. Narcotics and benzodiazepines as sedation were given and the patient was positioned in lithotomy. This technique (Partha's Technique) will decrease the wastage of anaesthesia time after injection of anaesthetic agents. Titrated doses of Inj. Propofol 20 mg and ketamine 20 mg were given and the procedure was allowed to start. The patient was given oxygen through a Bain circuit.

**Conclusion:** Appropriate small technical modifications are needed for the safe conduct of anaesthesia


**Keywords:** Chronic Renal Failure, Anemia, Anesthesia, Intravenous, Propofol, Ketamine

## INTRODUCTION

Patients with chronic renal failure do have involvement of multiple systems. One such is hematological where anemia predominates. These patients also have altered coagulation parameters which interferes in perioperative management of sick patients.[1]Abnormal uterine bleeding is one such condition where bleeding is profuse without any local cause.[2] The absence of local cause may be complicated by associated renal pathology. In this case report we highlight the anesthetic significance of a patient with menorrhagia and renal failure coming for emergency endometrial curettage. The coexistence of anemia in both these diseases makes management of such a case tricky. We also focus on the aspiration risk in patients with renal dysfunction posted for small surgeries like this as emergencies.

## CASE REPORT

A 47-year-old female, known and diagnosed case of CKD since 8 months not on dialysis ( serum creatinine 3.8mg%) with a history of total thyroidectomy done 4 years ago on Tab.Thyroxine 50 mcg OD with raised TSH value of 100 µIU/ml, T3 and T4 being normal. There were no symptoms of hypothyroidism. She was on nifedipine 10 mg twice a day and hematinic. presenting with anemia (Hb - 7.4 g/dl) with menorrhagia posted for emergency endometrial curettage in view of continuous bleeding with tachycardia. Her Nil Per Os status was 4 hours. She was moderately built with BMI of 24.3 with normal spine and Mallampatti Grade – III. The vitals were stable, with normal routine investigations including coagulation profile and calcium. She was administered parenteral pantoprazole for acid aspiration prophylaxis

**Anesthetic management**

After shifting the patient inside the operating room, routine monitoring equipment were attached and the patient was positioned in lithotomy after administration of Inj. Midazolam 1 mg and Inj.Pethidine 20 mg only. The patient was hesitant to undergo regional anaesthesia. Inj.Ketamine (50 mg) and Inj.Propofol (50 mg) was prepared as a mixture of Inj.Ketofol. Surgeons were asked to inform just before instrumentation. Inj.Ketamine 20 mg and Inj.Propofol 20 mg IV was given prior to instrumentation. Patient was administered with 6 L of oxygen through Bains circuit with ETCO2 monitoring. The procedure was initiated after patient stopped verbalizing. A 20 degree head up was done. The procedure lasted for 20 minutes and 10 more mg of Inj. Ketamine and Inj.Propofol was required. The hemodynamics were stable throughout the surgery with a satisfactory breathing maintaining normal ETCO2. Around 250 ml of clots were removed and endometrial curettage was done. Fluid administration was restricted to 300ml. the surgery was uneventful. She was conscious with stable hemodynamics. .

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## DISCUSSION

One in seven patients of CKD will have anemia. Anemia has been identified as a modifiable risk factor for poor perioperative outcomes[3,4]. Hence in our case, already existing chronic anemia of CKD is worsened by acute worsening by bleeding. We maintained satisfactory oxygenation throughout the procedure to circumvent the problems of anemia. CRF without H. pylori infection primarily shows a tendency for high gastric acidity.[5] This predisposes our patient to aspiration risk. This was countered by administration of proton pump inhibitors and addition of ketamine.[6] The intraoperative blood loss was minimal. Our patient even though a case of CKD was having normal coagulation profile.[7] This clears the dilemma of the cause of bleeding in these cases. Because, curettage in a patient with a bleeding disease will prove counterproductive.[8] Our patient has also had a thyroidectomy done with normal T4 and T3 values but a TSH of 100. This also may interfere with bleeding mechanism along with excess sedation.[8] In our case, the calcium levels were normal. There is no time to normalize thyroid profiles. Regional anesthesia could have avoided polypharmacy but the patient was not willing for the same. Ideally this patient should have been intubated but as the procedure is very short, we took it under intravenous anaesthesia. In our experience, complete intravenous anaesthesia without muscle relaxants makes positioning for lithotomy difficult. Hence, we adopted the technique (Partha's technique) of giving moderate sedation and positioning followed by additional doses of anaesthetic drugs. A thorough literature search could not reveal any such case. We present the case for its extreme rarity.

## CONCLUSION

Here we successfully report that a case of a chronic renal failure patient coming with menorrhagia for emergency endometrial curettage can be managed with intravenous agents like propofol and ketamine without any hemodynamical instability and risk of aspiration. Appropriate small technical modifications are needed for the safe conduct of anaesthesia

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