Case Study: Medical Management of Cornual Ectopic: When is it safe?

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Introduction

Cornual ectopic comprise of 2-4% of all ectopic pregnancies[1]. Early diagnosis and management are critical as they tend to present relatively late at ~7-12 weeks[2]. Given their potential to rupture at later gestations, their mortality rate is 6-7 times greater than all ectopic pregnancies combined[3]. The aim of this poster is to explore considerations for management of cornual ectopic and the success rate of methotrexate through a case study and review of the literature.

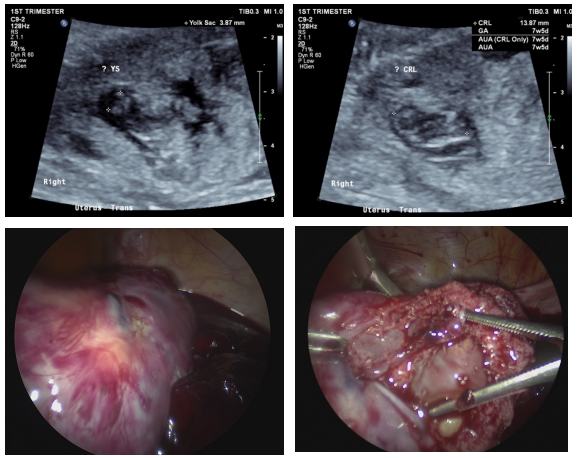
Case Report

EW, a 33yo female presented with a right cornual ectopic pregnancy. She was initially asymptomatic with a bHCG of 226,660. Her initial transabdominal + transvaginal ultrasound demonstrated a 4mm yolk sac in the right cornu of the uterus, with a potential adjacent 13.3mm fetal pole. Nil fetal heart rate was detected. EW was transferred to a tertiary centre and elected to be treated with IV methotrexate. Six weeks post IV methotrexate she re-presented hemodynamically compromised, with a ruptured ectopic and required a hysterectomy for uncontrollable haemorrhage.

Date	hCG (Pregnancy) IU/L	
25-Nov-2022	**226,660**	Initial presentation to RDH
27-Nov-2022	**164,400**	
28-Nov-2022	**234,110**	
29-Nov-2022	**209,780**	Day 1: IV MTX
06-Dec-2022	**146,670**	Day 7: nil PV bleeding, mild lower abdo cramp, otherwise well
13-Dec-2022	**36,935**	15/12: Follow-up MFM scan: Feeling tired ++ with ongoing daily nausea + vomiting, nil PV bleeding or abdo pain
20-Dec-2022	**8,682**	Well, nil PV bleeding, nil pain Reviewed again 28/1/22 → Heavy PV bleeding (unable to quantify) + clots for 4 days No flooding, not changing hourly Nil abdo pain or shoulder tip pain
03-Jan-2023	**2,141**	
10-Jan-2023	**1,348**	
11-Jan-2023	**1,717**	Re-presented to RDH → ruptured ectopic

Table 1: Timeline of EW bHCG trend and clinical presentations

Case Report



Images 1 + 2: Initial ultrasound demonstrating
Left: yolk sac
Right: fetal pole

Images 3 + 4: intraoperative images
Left: site of ruptured ectopic
Right: gestational sac

Results and discussion

A review of 14 articles assessing the efficacy of methotrexate (IM or IV) had success rates ranging from 66-100%, with an initial bHCG ranging from 32 to 106,634. The bHCG in the case study was significantly higher at 226,660, which could be a predictor for failed medical management. Medical management has been quoted to be more successful when bHCG <5000IU/L and in cases with no signs of fetal cardiac activity[4]. However, there is no clear guidelines for safe management with methotrexate that takes into consideration bHCG, gestational size, or embryonic cardiac activity.

Traditionally, the management of cornual ectopic has been surgical[5]. Methotrexate has been considered for patients who are hemodynamically stable with desires for future fertility. Considering the rarity of cornual ectopic, comparative studies have been difficult, hence the best medical treatment regime remains unclear.

References

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