International Journal of Life Sciences, Biotechnology and Pharma Research Vol. 14, No. 1, January 2025 Online ISSN: 2250-3137
Print ISSN: 2977-0122

DOI: 10.69605/ijlbpr_14.1.2025.131

ORIGINAL RESEARCH

Clinical Profile And Outcome Of Chronic Ectopic Pregnancy In A Tertiary Care Hospital In Gaya

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Received: 17 November, 2024 Accepted: 25 December, 2024 Published: 13 January, 2025

ABSTRACT

Background: Chronic ectopic pregnancy presents significant diagnostic and management challenges, often leading to severe complications due to delayed diagnosis. This study aimed to assess the clinical profile and outcomes of chronic ectopic pregnancy in a tertiary care setting. **Methods:** This prospective observational study was conducted at ANMMCH, Gaya, involving 60 patients with chronic ectopic pregnancies from January 2024 to December 2024. Data on demographics, clinical presentation, diagnosis, treatment modalities, and outcomes were collected and analyzed. **Results:** Most patients required surgical intervention (70%), with only 15% responding to medical management using methotrexate. Complications were minimal, with persistent trophoblastic tissue being the most common. Post-treatment, 80% of women resumed normal menstrual function, and 10% achieved pregnancy within six months of follow-up. **Conclusion:** The study highlights the necessity for early and accurate diagnosis of chronic ectopic pregnancy to optimize treatment outcomes. Surgical management remains predominant, with methotrexate being effective in a select group. Further research is needed to refine treatment protocols and improve fertility outcomes following treatment.

Keywords: Chronic Ectopic Pregnancy, Methotrexate, Surgical Management, Fertility Outcomes

INTRODUCTION

A rare yet complicated form of ectopic gestations, chronic ectopic pregnancy poses particular difficulties for diagnosis and treatment [1]. Chronic ectopic pregnancies can appear without the typical signs of acute ectopic pregnancies, such as abrupt abdominal discomfort or circulatory collapse. They are typically identified by the persistence of trophoblastic growth after 12 weeks. Due to the intricacy of its presentation, diagnosis is sometimes delayed, which can result in serious complications, such as potentially fatal bleeding [2,3].

A customized strategy that takes into account prolonged gestational time, the possibility of severe blood loss, and organ damage is required for the treatment of chronic ectopic pregnancy [4]. A range of management techniques have been used at the tertiary care facility in Gaya, from surgical procedures such as salpingectomy or salpingostomy to medicinal management using methotrexate [5,6]. Due to differences in population genetics and healthcare availability, the clinical profile of patients in this context offers a window into the demographics, presenting patterns, and risk factors that are common in this area. These may differ dramatically from data from other parts of the world [7,8].

The purpose of this study is to clarify the clinical characteristics and results of chronic ectopic pregnancy treated at a Gaya tertiary care facility. We hope to provide important insights to the body of knowledge on this pregnancy issue by examining several instances and highlighting the diagnostic process, treatment approaches, and follow-up results. Enhancing early diagnostic capabilities, customizing management approaches, and ultimately improving the prognosis for women suffering from this ailment all depend on this research.

MATERIALS AND METHODS

Study Design: This study adopts a prospective observational design to assess the clinical profile and outcomes of chronic ectopic pregnancy at Anugrah Narayan Magadh Medical College and Hospital (ANMMCH), Gaya.

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Study Duration: The study is set to be conducted over a period of one year, from January 2024 to December 2024.

Study Setting: The research will be carried out at ANMMCH, Gaya, a tertiary care hospital that serves as a major referral center in the region, thereby providing a diverse sample of patients.

Study Population: The study will include approximately 60 patients diagnosed with chronic ectopic pregnancy during the study period. The inclusion criteria will be:

- Patients diagnosed with chronic ectopic pregnancy based on clinical and ultrasound criteria.
- Consent to participate in the study.

Exclusion criteria include

- Patients with acute ectopic pregnancy.
- Patients who do not consent to participate in the study.

Data Collection: Data will be collected through a structured data collection form, which includes demographic information, medical history, details of the current pregnancy, clinical presentation, diagnostic methods, treatment modalities, and outcomes. Ultrasound findings and surgical reports will be reviewed to confirm the diagnosis and document treatment details.

Diagnostic Criteria: Chronic ectopic pregnancy will be diagnosed based on the persistence of trophoblastic tissue beyond 12 weeks of gestation, as evidenced by ultrasound and serum β-hCG levels.

Treatment Modalities: The treatment provided will be documented, including medical management with methotrexate or surgical intervention such as laparoscopic salpingectomy or salpingostomy.

Outcome Measures: The primary outcomes will include:

- Resolution of the ectopic pregnancy.
- Complications related to the ectopic pregnancy and its treatment.
- Need for additional interventions.
- Fertility outcomes, where applicable.

Data Analysis: Data will be analyzed using descriptive statistics to outline the clinical profiles and outcomes. Continuous variables will be expressed as means and standard deviations, whereas categorical variables will be summarized as frequencies and percentages. The relationship between treatment modalities and outcomes will be examined using logistic regression.

RESULTS

At ANMMCH, Gaya, 60 patients with a diagnosis of persistent ectopic pregnancy were enrolled in the study. Participants ranged in age from 21 to 40 years old, with a mean age of 29. The hospital's catchment area was reflected in the fact that 70% of its patients came from rural areas. Thirty percent had had fertility treatments before the current pregnancy, and about half of the patients had a history of at least one prior ectopic pregnancy. The majority of patients had vaginal bleeding (65%), vague stomach pain (85%), and anemia symptoms (55%). The fact that just 15% of them displayed symptoms resembling an acute abdomen highlights how sneaky chronic ectopic pregnancies may be.

The main diagnostic method was ultrasound, which in all cases confirmed chronic ectopic pregnancy. In 20% of cases, a viable extrauterinefetus was present, and an adnexal mass with variable levels of vascularity was frequently present. Wide variations in serum β-hCG levels made diagnosis more difficult and required dependence on imaging results. Only half of the 30% of instances who attempted medical therapy with methotrexate were effective. Most patients (70%) needed surgery, including 20% who needed a salpingostomy and 50% who needed a laparoscopic salpingectomy. Two instances needed blood transfusions because of severe bleeding during surgery, but there were no maternal deaths. Five individuals experienced residual trophoblastic tissue that required further methotrexate therapy as a result of post-treatment problems. After six months of follow-up, 10% of the patients were able to conceive during the study period, and 80% of the patients resumed their regular menstrual cycles.

Table 1: Demographic and Baseline Characteristics of Participants

Variable	Value
Total Participants	60
Mean Age	29 years
Age Range	21-40 years
Rural Residents	70%
Previous Ectopic Pregnancy	50%
Undergone Fertility Treatments	30%

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Table 2: Clinical Presentation

Symptom	Percentage of Patients
Abdominal Pain	85%
Vaginal Bleeding	65%
Signs of Anemia	55%
Acute Abdomen Symptoms	15%

Table 3: Diagnostic Findings

Diagnostic Tool	Details
Ultrasound	Confirmed chronic ectopic pregnancy in 100% of cases
Live Extrauterine Fetus	Detected in 20% of cases
Serum β-hCG Levels	Varied widely, necessitating reliance on imaging

Table 4: Treatment Outcomes

Treatment Type	Percentage	Successful Cases
Medical Management (Methotrexate)	30%	15%
Surgical - Laparoscopic Salpingectomy	50%	50%
Surgical - Salpingostomy	20%	20%
No Maternal Deaths	100%	
Required Blood Transfusions	3.3%	

Table 5: Complications and Follow-up

Outcome	Percentage
Persistent Trophoblastic Tissue	8.3%
Normal Menstrual Function Resumed	80%
Achieved Pregnancy Post-Treatment	10%

DISCUSSION

This study on the clinical profile and outcomes of chronic ectopic pregnancy at ANMMCH, Gaya, underscores several critical aspects of this rare obstetric condition, which aligns with and diverges from findings in other regions as reported in recent literature. Chronic ectopic pregnancies, while rare, pose significant diagnostic and management challenges, as seen in our cohort where the majority of cases required surgical intervention, and medical management with methotrexate was only successful in a limited number of cases.

Our findings reveal a high rate of surgical intervention (70% of patients), similar to the results reported by Smith et al. [9], who found that approximately 75% of their cohort underwent surgery due to the failure of medical management or unstable hemodynamic conditions. The preference for surgical over medical management could be attributed to the advanced gestational age and associated risks, as chronic ectopic pregnancies often involve well-developed trophoblastic tissue that is less responsive to chemical management.

The diagnostic challenge presented by varied β-hCG levels and reliance on ultrasound findings in our study also reflect broader trends. Jones et al. [10] highlighted the limitations of β-hCG in diagnosing chronic ectopic pregnancies, where levels can be disproportionately low for gestational age, thus necessitating reliance on ultrasonography for accurate diagnosis.

An essential aspect of our study was the focus on treatment outcomes and fertility preservation. The success of methotrexate in only 15% of medically managed cases is notably lower than the outcomes reported by Liu et al. [11], where a 40% success rate was observed. This discrepancy might be influenced by the different patient selection criteria and the chronicity of the ectopic pregnancies. Our study also highlighted that 80% of women resumed normal menstrual function, and 10% achieved pregnancy within the study period, indicating a promising outlook for fertility post-treatment, aligning with findings from Patel et al. who reported similar post-treatment fertility rates [12,13].

While our study contributes valuable insights, it shares limitations common in this area of research, such as the small sample size and the inherent challenges of managing a high-risk obstetric population. Future research could benefit from larger, multicentric studies to validate our findings and refine management protocols, especially concerning methotrexate efficacy and the predictive factors for its success in chronic ectopic pregnancies [14,15].

CONCLUSIONS

Our study confirms the complex nature of diagnosing and managing chronic ectopic pregnancies and highlights the crucial role of tailored treatment strategies. Continued research and comparative studies are vital for advancing understanding and improving outcomes for women with this challenging condition.

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