

# Obs and Gynae PG Focus Series

## Pyrexia in Pregnancy

*Editors*

**Komal N Chavan  
Niranjan Chavan**

*Co-Editors*

**Akanksha Barkase  
Shikhanshi**



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## Noninfectious Causes of Fever in Pregnancy

### ■ INTRODUCTION

It is due to chronic inflammatory conditions or autoimmune disorders like systemic lupus erythematosus. This group also comprises concept of PUO, i.e., pyrexia of unknown origin.

Pyrexia of unknown origin is defined as fever of 38.3°C or more (101°F) on several occasions, for >14 days span without any identifiable cause despite complete history, physical examination, and laboratory investigations.

Noninfectious causes for fever in pregnancy are similar to that of in nonpregnant woman.

### ■ ETIOLOGY

- *Neoplastic conditions:*
  - Lymphomas
  - Leukemia
  - Hypernephroma
- *Rheumatic and autoimmune disorders:*
  - Systemic lupus erythematosus (SLE) and rheumatoid arthritis
  - Behçet's syndrome
- *Drug induced:*
  - Sulfa drug reaction
  - Beta-lactam antibiotics
  - Antiretroviral drugs, serotonin syndrome
- *Thromboembolism:*
  - Deep venous thrombosis
  - Pulmonary embolism
- *Pulmonary causes:*
  - Acute respiratory distress syndrome (ARDS)
  - Chemical pneumonitis
- *Transfusion reactions:* Blood and blood products transfusion reaction

### ■ CLINICAL FEATURES

**Table 1** highlights the differentiating characteristics seen in infectious versus noninfectious causes of fever.

**TABLE 1:** Differentiating features between infectious and noninfectious causes of fever.

*Distinguishing infectious vs. noninfectious causes of fever:*

<i>Signs or symptoms</i>	<i>Infectious</i>	<i>Noninfectious</i>
Chills or rigors	+++	—
Leukocytosis*	+++	+
Pulse-temperature dissociation**	+	+++
Continuous fever***	+	+++
Hemodynamic instability and lactic acidosis	+++	—

*Note:* +++ (frequently occurs); + (infrequently occurs); — (does not occur)

\* Acute necrotizing pancreatitis may be associated with systemic inflammatory response syndrome with leukocytosis and increased respiratory rate without evidence of an infectious process.

\*\* Lack of increase in heart rate of 10 beats/minute per 1° of temperature increase in Celsius scale that may be present in drug-induced fever but sometimes seen in patients with infections caused by intracellular organisms (for example, pneumonia from *Legionella bacterium*).

\*\*\* Continuous fever is defined by fever that remains most of the time above 100.9°F (38.3°C).

## ■ DIAGNOSIS

- No obvious infectious cause of fever
- No history of recent hospitalization or catheterization
- History of recent travelling must be asked along with occupational history
- History of allergy or any drug intake is important

Associated symptoms will give clue regarding etiology; following associated symptoms should be looked for:

- Chills and rigors, myalgia, skin rash, joint pain, cough, dyspnea, headache, and lethargy

## ■ MANAGEMENT

Patient should be admitted and investigated carefully to rule out all possible causes of fever.

Routine ANC care is given along with fetal monitoring.

Prophylactic antibiotics are to be given and patient is monitored for pattern of fever and any other associated symptoms.

If a patient is known case of any autoimmune disease, then he/she must be evaluated for any acute exacerbation of the disease.

## ■ CONCLUSION

Pyrexia in pregnancy may not always be due to an infection. Ruling out infections, travel history, intake of any drugs, associated symptoms are crucial to point towards a noninfectious cause.

### ■ SUGGESTED READING

1. Brar R, Suri V, Suri V, Singh MP, Biswal M, Sikka P. Fever During Pregnancy: Etiology and Fetomaternal Outcomes. *J Obstet Gynaecol India*. 2022;72(Suppl 1):102-108.
2. Egloff C, Sibiude J, Couffignal C, Mandelbrot L, Picone O. Causes and consequences of fever during pregnancy: A retrospective study in a gynaecological emergency department. *J Gynecol Obstet Hum Reprod*. 2020;49(9):101899.



# Obs and Gynae PG Focus Series

## Pyrexia in Pregnancy

The PG Focus Series is a collection of books that aims to provide in-depth insights and practical knowledge on specific topics. These books are designed for readers who want to deepen their understanding or enhance their skills in a particular area, whether it is exam preparation, personal development, professional growth, or specialized subjects. These also include case studies and multiple-choice questions.

Each book in the series features a focused approach, making complex ideas more accessible and applicable.

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- Pyrexia in Pregnancy
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- Autoimmune Disorders in Pregnancy
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- Postpartum Hemorrhage and Internal Iliac Artery Ligation

**Komal N Chavan** MD DNB MNAMS FCPS DGO FICOG and Diploma in Reproductive Medicine (UK-SH Germany) is a distinguished Senior Consultant and Unit Chief, Department of Obstetrics and Gynaecology, VN Desai Hospital, Mumbai, Maharashtra, India. With over 16 years of teaching experience, she serves as a DNB Teacher and has been a Postgraduate Examiner, contributing significantly to the education of future medical professionals. She is currently Vice President, FOGSI (2025–2026). She is actively involved in various professional organizations, including the ICOG Governing Council, MOGS, AFG, Mumbai Menopause Society, and ISOPARB Mumbai Society, where she holds several key positions. She is recognized for her expertise, having been an invited faculty member at numerous international and national conferences, where she has delivered keynote addresses, guest lectures, and moderated panel discussions. Her scholarly contributions are extensive, with over 24 publications in international and national journals. She has edited 33 books and newsletters. She has also contributed chapters to FOGSI Focus and various textbooks, and her work includes contributions to FOGSI GCPRs, protocols, and checklists. Her dedication to women's health and education has earned her 20 prestigious awards, to name a few the FOGSI's Dr Mehroo Dara Hansotia Best Committee Award, AMOGS—Best Committee Award, MOGS—Dr Rishma Pai Personality of the Year Award for 2023, MOGS—Dr Ganatra Charitable Trust Award 2023, and MOGS—Dr Pramila Bhatia Scientist Award 2022. Her commitment to excellence continues to inspire her peers and students alike.



**Niranjan Chavan** MD FICOG FCPS DGO DFP MICOG DICOG Diploma in Endoscopy (USA) is Professor and Unit Chief, Department of Obstetrics and Gynaecology, Lokmanya Tilak Medical College and General Hospital (LTMC & GH) of Maharashtra University of Health Sciences (MUHS), Mumbai, Maharashtra, India. He pursued MBBS (1989) from King Edward Memorial Hospital and Seth Gordhandas Sunderdas Medical College and did MD (Obs/Gynae) (1993) from LTM College. He did Diploma in Endoscopy (1997) from Staten Island, USA, and went to hone his minimal invasive surgical skills in endoscopy at Royal Free Hospital, Hampstead, UK, in 2000. With a remarkable 32 years of teaching experience, he has made significant contributions to the education and mentorship of undergraduate and postgraduate medical students, playing a key role in shaping the next generation of medical professionals. He has been bestowed with 30 awards and is an Editor-in-Chief of three journals. He has edited 12 textbooks, written more than 100 chapters, and delivered more than 800 lectures, keynote addresses, and 5 orations in international and national conferences, CMEs, and workshops. He has to his credit 88 scientific papers with 222 citations. His fields of interest are endoscopy, high-risk obstetrics, oncology, and infertility. He is currently Organizing Secretary, AICOG-Mumbai, 2025; Treasurer, FOGSI (2025–2027) and Vice President, AFG (2025–2026) and has served as the President of the prestigious Mumbai Obstetric and Gynaecological Society (2022–2023). He has been the Chairperson, FOGSI Oncology Committee (2012–2014) and contributed to oncology-focused roles as an Executive Member in SAFOG and AFOG.



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