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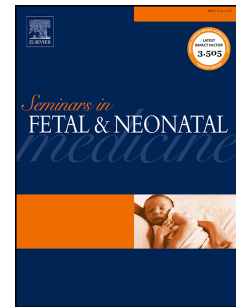
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## Variable role of patent ductus arteriosus

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### SUMMARY

Although patent ductus arteriosus is essential in fetal life, interventions to close or minimize the adverse hemodynamic effects associated with the left-to-right shunt are often needed after birth, especially in extremely premature infants. However, there are clinical conditions where maintaining patency of the ductus is essential for survival. In this article we discuss use of prostaglandin E<sub>1</sub> in the management of congenital heart defects, pulmonary hypertension and left ventricular failure in early neonatal period.

*Keywords:*

Congenital diaphragmatic hernia

Congenital heart defect

Prostaglandin

Pulmonary hypertension

Patent ductus arteriosus

### 1. Introduction

Management of patent ductus arteriosus (PDA) often focuses on closure of a problematic PDA. However, the PDA has variable roles and may be helpful and sometimes even necessary to sustain life. There are situations in which prostaglandin, most usually alprostadil (PGE<sub>1</sub>), is administered to maintain patency of the ductus arteriosus.

### 2. Role of PDA in management of congenital heart disease

#### 2.1. Background

Congenital heart disease (CHD) represents nearly a third of all major congenital anomalies worldwide [1]. The incidence of CHD is thought to be roughly eight per 1000 live

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