Elective Induction of Labor

What is the Impact?

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KEYWORDS

• Elective induction • Non–medically indicated induction • Induction of labor
• Cesarean delivery

KEY POINTS

- Elective induction (induction without maternal/fetal indication) is not associated with an increased risk of cesarean delivery compared with expectant management of pregnancy.
- Elective induction after 39 weeks may be associated with decreased maternal morbidity (such as infection) and decreased neonatal morbidity (such as respiratory distress).
- Recent reductions in elective early term delivery do not seem to have significantly increased stillbirth rates; however, elective induction after 39 weeks may theoretically lower the risk of stillbirth.
- Elective induction may be associated with increased resource use and cost, decreased patient satisfaction, and lower rates of breastfeeding.

INTRODUCTION

Labor induction is a common intervention in the United States, occurring in nearly a quarter of births.[1] There are a broad range of medical indications for induction, which are typically recommended to prevent worsening maternal disease, neonatal morbidity, or fetal death. Elective inductions are those without any medical indication in healthy women with a singleton pregnancy. Some researchers and policy experts advocate calling these non–medically indicated inductions, rather than elective inductions; however, these two terms are used fairly interchangeably.[2–4] Elective delivery before 39 weeks is associated with increased neonatal morbidity[5] and elective inductions are not recommended before 39 weeks.[3] Thus, this article reviews the impact of inductions after 39 weeks, and more specifically at 39 or 40 weeks' gestation, because many providers recommend induction at 41 weeks for postdates, which is considered a medical indication.

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CURRENT TRENDS IN ELECTIVE INDUCTION

The overall rate of labor induction has increased dramatically in the United States over the last 30 years (Fig. 1). In 1990, less than 10% of deliveries were after an induced labor, increasing to 23% to 24% in 2005 before leveling off.[1,6–8] A similar trend has been seen in many other countries, across high, middle, and low income settings.[9] The increasing use of elective induction is driving the overall trend in labor induction rates. For example, among 6 US health care plans from 2001 to 2007, the overall rate of labor induction mirrored changes in the elective induction rate, which first increased from 11% to 14%, driving the overall rate from 28% to 32%, then declined back to 11% to bring the overall rate back down to 29%.[10]

IMPACT ON CESAREAN DELIVERY

One of the main concerns with labor induction is the potential impact it may have on cesarean delivery. Labor induction is often cited as a primary driver behind the increasing rate of cesarean delivery in the United States; cesarean delivery rates have increased nearly in parallel with increasing rates of labor induction.[8] It also makes intuitive sense to both patients and providers that induced labors would have a higher chance of ending in a cesarean delivery. However, the true relationship between labor induction and cesarean delivery is complex and, when analyzed more closely, it does not seem that labor induction is associated with a significantly increased risk of cesarean delivery.

The challenge with studying the effect of labor induction is in choosing the right comparison group. The comparison that is made most easily is between labors that are induced and those that are spontaneous; this is the comparison that providers see in the daily practice of obstetrics. When this comparison group is used, induced labors seem to be at approximately a 2-fold increased risk of cesarean delivery compared with spontaneous labors. For example, Heffner and colleagues[11] analyzed

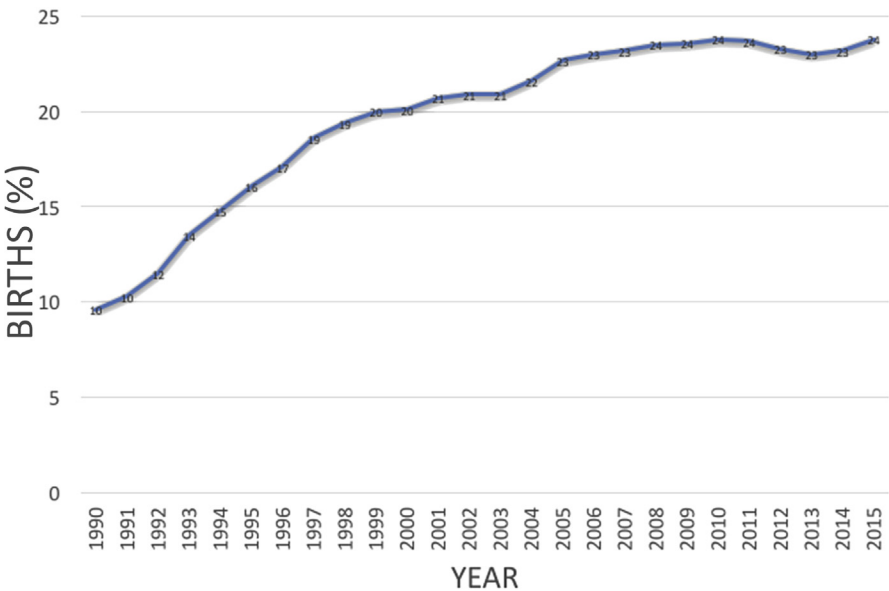

Fig. 1. Rates of labor induction in the United States from 1990 to 2015. (*Data from* Refs.[1,6–8])