

Obstetric Care In A Rural Family Practice

Wain Allen, M.D.

Abstract: Obstetrical care in the United States is becoming more difficult for rural populations to obtain. Fewer family physicians are providing obstetrical services. This study is a report of one family physician's obstetric experience in a small rural town. In a series of 67 obstetrical patients, 8 percent of the deliveries occurred outside of the hospital. The

rate of Cesarean section was 3 percent, significantly less than the >20 percent national average. There was 1 premature delivery, and no infant deaths. These figures compare well with national averages and show the need for family physicians to provide obstetrical care in rural areas. (J Am Bd Fam Pract 1989; 2:30-33.)

Obstetrical care is changing in the United States. It is becoming more expensive and more difficult to obtain. Two notable pattern changes have been a continuing increase in the number of Cesarean sections performed and a steady decline in the number of family physicians delivering babies. In my state (Utah), nearly two-thirds of family physicians have given up or are giving up obstetrics.¹ This is due almost entirely to the increasing rates of malpractice insurance as well as the intimidating medical-legal climate.¹ (I listened to a public television special this year in which a lawyer stated that all family physicians should give up obstetrics.) Comparisons between obstetrical care by family physicians and obstetricians are difficult to make. Studies comparing quality of such care between obstetricians and family physicians have shown no significant differences.²

Another problem is delivery of obstetrical care in rural areas. In 1977, federal planners recommended that hospitals delivering fewer than 500 babies per year should consider discontinuing obstetrical services.³ Public outcry caused a revision. It was noted in one article that 81.2 percent of obstetrical wards in Iowa hospitals would have been shut down under those guidelines.⁴ Economic difficulties, however, have caused closure of many hospitals in rural towns, including the town where I live. As a rural family physician practicing obstetrics, I have noted some interesting patterns in my practice. This study is a report of my obstetric experience. I present it as an encouragement for other family physicians as well as a focus of discussion for rural obstetrical care in general.

From a private practice. Address reprint requests to Wain Allen, M.D., Box 865, Coalville, UT 84017.

I moved to a small rural town 4 years ago. My practice has included obstetrics since my arrival. I am currently delivering babies at the rate of 3 per month. I have delivered 67 babies in the last 3 years. The population of my town is approximately 1000 persons, with several thousand more in the surrounding area. I have currently enrolled in my practice 1230 families totalling 2350 patients. The nearest hospital is 45 miles away. I have hospital privileges and do deliveries at that hospital. I was trained in a military residency to do Cesarean sections but have not done them in civilian practice because of malpractice rates and lack of volume.

Patient Characteristics

Age. Average = 26 years; range = 15 to 40 years (Figure 1).

Parity. Average = 2.4; range = 1 to 7 (Figure 2).

Gestation. Average = 40.04 weeks; range = 35 to 43 weeks (Figure 3).

Birth weight. Average = 3433 grams; range = 2373 to 4515 grams (Figure 4).

Cesarean deliveries. n = 2 (3 percent).

Out-of-hospital deliveries. n = 5 (7.4 percent).

Women with previous Cesarean deliveries. n = 4 (6 percent).

Discussion

Age and Parity

The age of primiparas in the United States is increasing. As more and more women combine careers and motherhood, they are delaying childbirth. It appears that my population was probably of a higher parity and younger age than average.

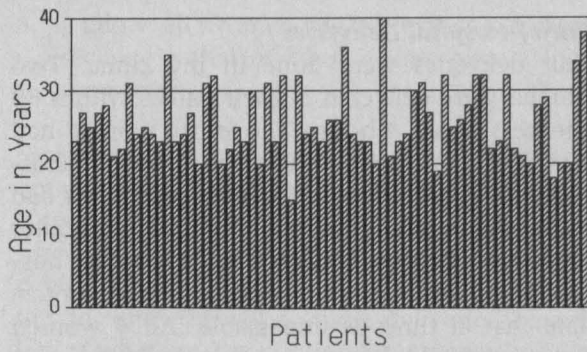


Figure 1. Age at delivery.

Gestation

Prematurity is the single greatest cause of neonatal morbidity and mortality. It occurs in 2 to 10 percent of pregnancies.⁵ Causes of premature labor are multiple, and it is higher in lower socioeconomic groups. Many of the causes are unknown. Recently, McGregor indicated a possible association between cervical infections and premature labor.⁶ I had 1 neonate delivered before 38 weeks, for a rate of 1.5 percent. The cause was placental abruptio. The newborn (gestation 35 weeks) aspirated blood and required intensive care for 1 week. Today, the infant is normal at age 2 years.

Cesarean Deliveries

After my second year in practice, I realized I was not seeing the rate of Cesarean section that was reported in the literature. Nationally, the rate of Cesarean section deliveries has been rising for more than 15 years.⁷ In 1970, 5.5 percent of hospital deliveries in the United States were done by Cesarean section. In 1983, the rate was 20.3 percent. This is the highest rate in the world. The increase in Cesarean section rates has been described as a cause for national concern.⁸ A Cesar-

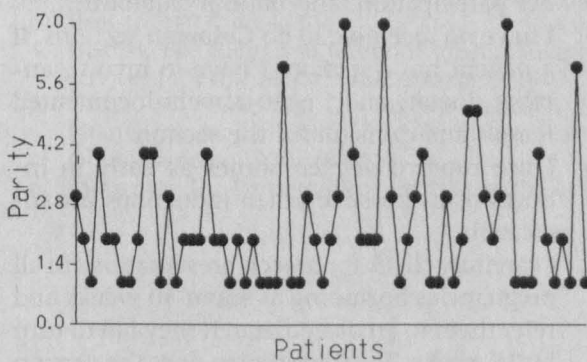


Figure 2. Parity after delivery.

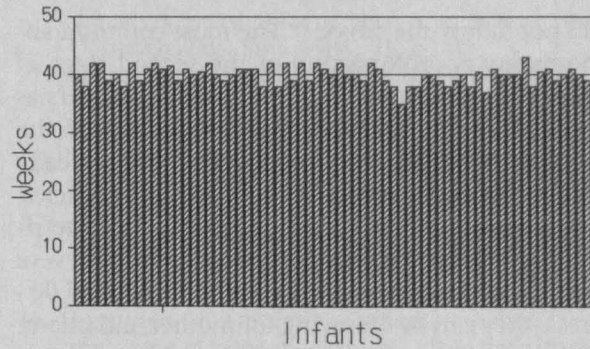


Figure 3. Gestation.

ean section is major surgery, and it involves all the risks of major surgery; i.e., bleeding, infection, prolonged recovery, and, in rare cases, death. It turns an anticipated family affair into a surgical experience. Many things contribute to this high rate. Bottoms, et al.⁸ concluded that the major indications for Cesarean section that needed to be reassessed were dystocia and previous Cesarean section. Those two indications have contributed disproportionately to the high rate in the United States.

The risk of vaginal delivery after previous Cesarean section has been well studied. The main risk is uterine rupture. In one large series, uterine rupture through a previous scar occurred in only 0.45 percent of patients during a subsequent labor.⁹ It is safe to proceed with trial of labor in women who have had a previous low-transverse Cesarean section, especially if the indication was dystocia or cephalopelvic disproportion. Such a trial requires close monitoring, early diagnosis, and prompt treatment.

Dystocia is ill defined and is often based on an abnormal labor curve. For an active natural labor, that may be justifiable, but often labors anesthetized by epidurals and then stimulated by pitocin

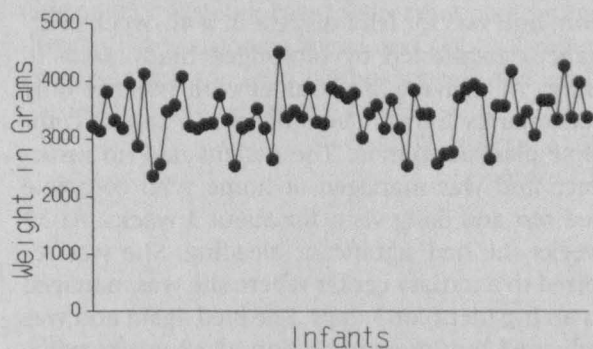


Figure 4. Birth weight.

do not follow the curve.¹⁰ The most common abnormality is prolongation of the second stage of labor, but prolongation of the first stage occurs as well. The current medical-legal climate of the United States no doubt contributes to the ready use of Cesarean section in problem pregnancies. Cesarean sections are a major advance in obstetrical care in this century. For women with severe preeclampsia or placenta previa, and for fetal distress, they can be lifesaving for mother and infant. Some researchers have claimed that the increasing Cesarean section rate is the reason for the declining infant mortality rate in the United States. However, a study comparing Cesarean section rates and infant mortality rates in the United States and Ireland concluded that the increasing rate of Cesarean sections had not contributed significantly to the reduction in infant mortality.¹¹

It seems a priori that a natural process such as pregnancy and delivery should not require surgical intervention in more than 1:5 cases. There appears to be a similar feeling among the consuming public, i.e., pregnant women. Patient activist groups have been formed by women who are opposed to repeat Cesarean section and what they view as interventionist medical practice.¹² The *Salt Lake Tribune* quoted a woman who described a failed Lamaze labor, use of an epidural to relieve pain, pitocin to resume labor stopped by epidural, 9 hours of labor without good progress, and Cesarean section for cephalopelvic disproportion. She had a natural vaginal delivery of her next child.

All 4 of my patients who had had previous Cesarean sections delivered vaginally without complication. All had low-transverse uterine scars. One previous Cesarean section was for a breech. The other three previous Cesarean sections were for cephalopelvic disproportion/failure to progress.

Of my 2 patients who required a Cesarean section, one was for fetal distress in a 42-week pregnancy, manifested by prolonged bradycardia in labor. At delivery, a shoulder cord was the only abnormality found. The other was a case of complete placenta previa. The patient had no insurance and was managed at home with complete bed rest and daily visits for about 3 weeks. At 37 weeks she had significant bleeding. She was referred to a tertiary center where she was managed as an inpatient for 3 days. She bled again and was delivered by Cesarean section at 38 weeks without complications.

Out-of-Hospital Deliveries

Four deliveries were done in my clinic. Two women were delivered of their babies within 30 minutes; I took 4 hours. The fourth woman had been sent home by her obstetrician from the hospital and could not make it back because of bad roads and weather. She had a 6-hour labor after arrival at my clinic. The 45-mile drive to the hospital includes a mountain pass on a major interstate that at times is impassable. All 4 women were delivered without problems and were sent home after 6 hours. The fifth patient was delivered with my assistance in her car enroute to the hospital. She was gravida 8 and presented at 3 centimeters. We drove straight to the hospital. I carry an obstetric delivery pack in my car, which I used in this case. There were no complications with the delivery or infant.

Summary

My practice has significantly fewer Cesarean sections than the national average, (3.0 versus 20.3 percent), although the numbers are small ($P < 0.001$). I believe the reasons for this lower percentage include the following:

1. I attempt to view labor as a natural process and intervene as little as possible. I check all my patients in labor at the clinic before going to the hospital, and in primiparas, I delay going until they are at least 4 to 5 centimeters.
2. I encourage my patients to remain ambulatory and active during labor as long as they can tolerate it.
3. I do not intervene in prolonged, latent-phase labors. Not infrequently, it takes 48 to 72 hours for women to move into an active phase of labor.
4. I strongly encourage childbirth classes, partner participation, and natural childbirth.
5. I have no incentive to do Cesarean sections. If a patient has a section, I have to involve another doctor, and I need a well-documented reason and decision for the section.
6. I use rupture of membranes as early in inductions as possible when inductions are indicated.
7. I carefully check for breech presentations in all pregnancies beginning at about 30 weeks and refer them to an obstetrician if they fail to turn by 36 weeks. The obstetrician does the version and the patients return to me for delivery.

8. I allow all women with previous Cesarean sections a trial of labor if they have a low-transverse scar.

Nearly 8 percent of deliveries in my practice occur out-of-hospital. That means usually in my clinic. It requires more expertise to do a delivery unassisted in a rural clinic than it does in a well-equipped major hospital. Family physicians are the doctors who will do those deliveries, regardless of whether they continue to practice hospital obstetrics.

Prematurity appears to be a minor problem in my practice. I am not sure of the reasons for this. I accept all patients regardless of their financial status. There is no county or welfare clinic for low-income patients, and my clinic provides the only health care in town for pregnant patients. I make regular use of the Women/Infant Children (WIC) government support program and local resources for patients who qualify and need it. I think this helps with the low rate of prematurity associated with low-socioeconomic status.

Conclusion

My reasons for offering this brief description of obstetrical care in a rural family practice are to show that family physicians are needed in many of America's rural areas and to offer encouragement to those family physicians who continue to provide obstetrical care and enjoy doing so.

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Editorial Comment

This article is published in order to preserve in some way a description of the "state of the art" of rural obstetrics at this particular time in the evolution of the specialty. The data do not scientifically establish any specific hypotheses. The numbers of patients are limited and the fetal outcomes are not documented.

In spite of these scientific limitations, the article does describe the nature of the practice of family medicine in a rural community in our time. It is likely that many changes in obstetric practice will be forthcoming, particularly for family physicians. We, the editors, feel it is important to make available for future generations a firsthand witness of the conditions of rural obstetric practice in the 1980s.

There is much speculation about the future of obstetric practice by family physicians. We do not have the prescience to predict with accuracy the role of family physicians in the future. However, we feel certain that if the medical profession and other responsible elements in society fail to provide quality obstetric care to our rural population, there will be profound social and political repercussions. Our specialty cannot ignore this issue, but neither can we resolve it alone.

Paul R. Young, M.D.
Lexington, KY