

The Obstetrical Experience of 20 Years in One Family Practice

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This communication reports one family physician's obstetrical experience over 20 years (from 1961 to 1981) in over 1,500 consecutive cases.

Background and Methods

The practice was a typical family practice and for years it would have been considered rural. In 1961, the population was about 12,000, with a drawing area population of another 20,000. The only hospital in town was an old, 25-bed proprietary hospital with one labor room, one delivery room, and five postpartum beds. Ten miles away was a 270-bed county hospital with two delivery rooms, four labor rooms, and ten postpartum beds. Also ten miles away was another proprietary hospital of 90 beds with two labor rooms, two delivery rooms, and five postpartum beds. The author supervised interns at the county hospital and delivered patients at the two proprietary hospitals.

Since 1961, the population has increased to about 35,000 and draws from a population area of 70,000. There are two relatively new general hospitals in town, each with about 100 beds. The author no longer supervises obstetrics residents or delivers any babies out of town. The county hospital has now been taken over by a university medical school.

For the first 15 years (1961 to 1976), there was no pediatrician in town; currently there are four. In 1971 an infant transport service was started by the university.

The patient population during the years covered by this communication consisted of 35 percent Mexican-American, 65 percent white, and less than 1 percent black or Asian. They were for the most part people of middle income; however, 35 percent were on public assistance.

Considerable emphasis was placed on prenatal care, including nutrition. Eighty-five percent of the patients were seen in the first trimester. The mean number of visits during pregnancy was 12. Attempts were made to avoid iatrogenic respiratory distress syndrome by scheduling repeat cesarean sections only for those women who were first seen in their first trimesters and for whose fetus' gestational ages were confirmed by sonogram during the second trimester. Otherwise, the cesarean section was done early in labor. The high risk patient was identified early after the method of Hobel.¹ Prompt measures were instituted to deal with high risk. During labor much of the monitoring was done by the author, and the patient was seen early in labor. External monitoring was used in almost all of the cases since it became available. Internal monitoring was used in most cases of ruptured membranes and all inductions. When dilatation reached 6 cm, the author stayed in the hospital until delivery. Most vaginal examinations were done by the author.

The tabulation form used to display descriptive data was the same as that at the nearby university medical center. The data were entered on the form as patients delivered and later was periodically tabulated.

Results

Of 1,682 consecutive cases, 102 were given only prenatal care because they moved away or transferred elsewhere. Thirty-two were delivered by other physicians covering for the author during vacations. Four were referred to the university medical center: one for premature rupture of the membranes at 26 weeks, one for Rh incompatibility, one for severe diabetes mellitus, and one for pulmonary embolus. One patient had a cesarean hysterectomy done by a local general surgeon assisted by the author. There were 157 abortions, 71 spontaneous and 86 induced. There were four ectopic pregnancies and two hydatidiform moles.

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Table 1. Results in 1,380 Deliveries

Description	Number
Live births	1,374
Single	1,360
Mature (2500 gm or more)	1,303
Premature (1000-2499 gm)	56
Immature (500-999)	1
Multiple	14
Mature neonates	16
Premature neonates	12
Stillbirths	6
Mature	0
Premature	5
Immature	1
Deaths	
Maternal	0
Neonatal	4
Premature	3
Mature	0
Immature	1

Table 2. Method of Delivery

Methods	Number
Nonoperative	349
Previous cesarean section	1
Operative	1,045
Forceps	766
Low	646
Mid	62
Rotations	58
Episiotomies	1,035
Midline	980
Left mediolateral	50
Episioproctotomy	5
Breech	
Spontaneous	1
Assisted	7
Extraction	6
Cesarean section	28
Cesarean section	
Primary	206 (14.8%)
Repeat	59 (4.2%)
Associated procedures	
Tubal ligation	68
Cesarean hysterectomy	1
Appendectomy	6

Table 3. Antepartum Maternal Complications

Diagnosis	Number
Toxemia	64
Preeclampsia	63
Eclampsia	1
Premature rupture of membranes	49
Diabetes	12
Anemia	10
Urinary tract infections	9
Postmaturity (as confirmed by examination of infant)	9
Abruptio placentae	8
Placenta previa	6
Acute appendicitis	6
Hemorrhage (500 ml or more)	5
Prolapsed cord	5
Rh isoimmunization	4
Polyhydramnios	4
Fetal distress	4
Double uterus	3
Herpes simplex	3
Hypothyroidism	2
Heroin addiction	2
Methadone maintenance	2
Carcinoma in situ of the cervix	2
Face presentation	1
Coarctation of aorta	1
Aged 14 years	1

Table 4. Intrapartum Maternal Complications

Diagnosis	Number
Inductions	72
Elective	50
Indicated	22
Lacerations	64
Vaginal	43
Cervical	11
Episioproctotomy	5
Born out of asepsis	2
Shoulder dystocia	2
Entry into bladder (cesarean section)	1

Condition	Number
Infections	21
Wound (cesarean sections)	9
Urinary	6
Endoparametritis	3
Pulmonary	2
Perineal abscess	1
Postspinal headache	14
Retained placenta (manual removal)	13
Fever standard	10
Hemorrhage (500 ml or more)	9
Thrombophlebitis	2
Breakdown of episiotomy	1
Convulsion associated with hyperventilation	1
Disseminated intravascular coagulation	1
Pulmonary embolus	1

Diagnosis	Number
Congenital heart disease	5
Hypospadias	5
Hemolytic disease of newborn	4
Club foot	3
Rh incompatibility	2
ABO incompatibility	2
Calcaneovalgocavus	2
Congenital hip dislocation	2
Gastroschisis	2
Hyaline membrane disease	2
Meconium aspiration syndrome	2
Cleft palate	2
Spina bifida	2
Down's syndrome	1
Cerebral palsy	1
Congenital deformity of pupil	1
Syndactyly	1
Meconium ileus	1

Primary Method	No.	Supplemental Method				
		Saddle Block	Pudendal Block	Trichoroethylene	Nitrous Oxide	Infiltration
Epidural block	546	24	31	2		3
Saddle block	347		2	1		
Pudendal block	346			10	3	31
Infiltration	33			3		
General	23					
Trichoroethylene	9					3
Nitrous oxide	3					

Reference Source	Stillbirth	Neonatal	Perinatal
US DHEW ²	9.8	9.9	19.6
Usher ³	9.7	6.3	15.9
Wilmer et al ⁴			
HMO*	8	3	11
FFS**	7	2	9
Hein ⁵	6.87-12.33	5.85-14.18	13.0-21.9
Williams ⁶	10	10	20
Kwang Sun Lee ⁷		12	
Pearce ⁸	9.5	7.6	17.1
Scurlitis ⁹	8.1	8.5	16.5
Shamsi ¹⁰	5.76	3.84	9.6
Stubblefield ¹¹	13	10	23

*Patients enrolled in health maintenance organizations
 **Patients delivered by a physician working under fee for service

The remaining 1,380 deliveries were all delivered by the author. There were 568 primipara. Twenty-one were multigravida primipara, and 791 were multipara. Many were repeat deliveries. The author delivered one patient five times, two patients four times, eight patients three times, and 173 patients two times.

The results of 1,380 deliveries by 1,181 patients are displayed in the Tables 1 through 7. There were 14 sets of twins. This results in a total of 1,394 babies. Perinatal mortality rate for the population (over 1,000 gm) was 5.77 per 1,000 (8/1,380). The 95 percent confidence interval is 1.78 to 9.75. Stillbirth rate (over 1,000 gm) was 3.60 per 1,000 (5/1,387). The 95 percent confidence interval is 0.45 to 6.76. The neonatal death rate (birth to 28 days) was 3 per 1,000.

Comment

Both stillborn and neonatal mortality compare favorably with that reported elsewhere, even when the experience over 20 years is compared with current reports. For example, Table 8 displays comparative data for stillbirths and neonatal and perinatal mortality.

The incidence of complications over the 20 years is about the same as that currently quoted

by Pritchard and MacDonald.¹² Fetal anomalies occurred in 3.5 percent of the cases. There was only one case of Down's syndrome, less than the expected incidence of 1 in 800.

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A Seed Money Grant Program for Family Medicine Research

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According to a recent study, one of the major impediments to family medicine research is the lack of funding.¹ Considering the brief history of family medicine, it is not surprising that interest in

family medicine research is emerging more rapidly than identifiable organizations interested in funding it. Before family medicine researchers can compete successfully with the more established researchers from other disciplines for grant support, they must establish their credibility as researchers. In the short run, this will require the

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