

# Obstetric hypnoanesthesia

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OBSTETRIC anesthesia has engaged the interest of physicians ever since Queen Victoria of England made it fashionable in 1843.<sup>21</sup> It has also continued to remain one of the obstetrician's controversial problems. Consideration for two patients, mother and unborn infant, has served to create a unique situation, different from all other anesthetic problems. Today, the choice of anesthesia<sup>13, 17, 21</sup> still depends more on the obstetrician's experience and preference rather than on the patient's desire and need. Yet all obstetricians recognize the desirability of maximal comfort for the mother and minimal sedation for the unborn infant.<sup>4, 5, 8, 15, 17</sup>

Over the last quarter-century I have used chloroform, ether, the gases, twilight sleep, spinal, continuous caudal,<sup>2</sup> paravertebral block, Trilene, local, Read's ideas, and no anesthesia at all. I have continued to use any one of these in special situations, at the patient's request, and in the absence of contraindications. My anesthetic of choice since Nov. 1, 1957, has been hypnosis.<sup>3, 7, 16, 18, 23, 24</sup> This paper reviews my personal experience with obstetric hypnoanesthesia from this date, Nov. 1, 1957, through Dec. 31, 1958.

## Material

There were 442 mothers delivered of 445 infants. Hypnoanesthesia was attempted in 351, or 79.4 per cent. It was completely successful as the sole anesthetic agent in 328, or 93.5 per cent, and was supplemented with other anesthetic agents in 23 or 6.5 per cent.

## Selection of patients

The decision to use hypnoanesthesia was made sometimes by the patient, in other cases by the physician. In most instances, the patient was apprised of the various types of anesthesia and requested to express a choice. Hypnosis was always presented in a most favorable light. Sometimes I stated that I wished to use hypnosis for particular reasons. Avoidance of fetal narcosis was the usual indication.<sup>20</sup> The fact that 10 per cent of all maternal deaths<sup>22</sup> have been accredited to anesthesia was sometimes mentioned. I always reserved the prerogative of final choice but for psychological reasons never pressed the use of hypnosis. The patient's objection to hypnotherapy was always considered to be an absolute contraindication to its use. Her request for this anesthesia was always welcomed.

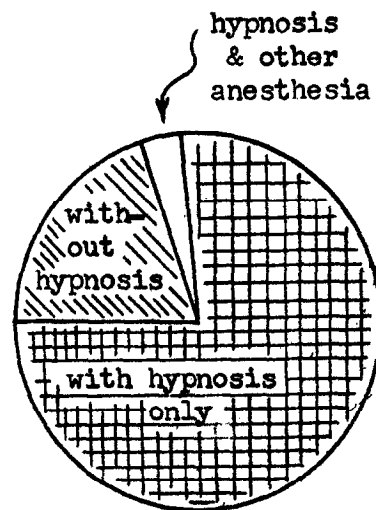


Fig. 1.

**Table I.** Types of anesthesia

<i>Hypnosis</i>	351 (79.4% of total)	
With previous practice	174	
Without previous practice	177	
Additional anesthesia	23	(6.5% of hypnosis patients)
Local	10	
Trilene	6	
Multiple	4	
Pudendal block	1	
Saddle block	1	
Ether	1	
Patients with previous practice requiring additional therapy	9	
Patients without previous practice requiring additional therapy	14	
<i>Delivered without hypnosis</i>	91 (20.6% of total)	
Pudendal block	27	
Multiple	26	
Trilene	17	
Ether	8	
Local	7	
Saddle block	2	
Cyclopropane	1	
Precipitate (none)	3	
<b>Total</b>	<b>442</b>	

**Method of approach**

Conditioning for hypnoanesthesia was used in 174 patients. This consisted initially of a 1½ hour indoctrination period for 6 to 8 expectant mothers and their husbands. It was followed by a variable number of one hour practice sessions for the women only, at the time of their regular obstetric check-ups. The patients practiced entering the hypnotic state and leaving it voluntarily. They indulged in question-and-answer periods. Various hypnotic phenomena such as progressive relaxation, catalepsy, skin anesthesia, time distortion, and dissociation were taught on different days.

Hypnoanesthesia without conditioning was used in 177 patients. This was initiated during labor without any prior explanation, discussion, or practice. Some of these patients had previously rejected the idea of hypnosis but developed a change of heart with the discomfort of labor. Some were among those previously classed as un-

suitable for group therapy. Some developed medical indications for hypnotherapy while in labor. The need for a decrease in, or elimination of, maternal chemical sedation for the sake of the unborn infant was always considered to be a prime indication for hypnotherapy.

**Technique**

Eye fixation followed by progressive relaxation was most frequently used to initiate group conditioning.<sup>27</sup> These patients were then given a "key" for ease of subsequent inductions. Conditioning was usually begun in the second trimester. In the presence of hyperemesis, it was begun as early as needed by the patient and invariably controlled this noxious symptom. The patients in the second group (not previously conditioned) were usually hypnotized by

**Table II.** Gravidity

<i>Gravidity</i>	<i>With hypnosis</i>	<i>Without hypnosis</i>	<i>Total</i>
1	78	19	97
2	59	20	79
3	62	16	78
4	59	11	70
5	33	12	45
6	27	2	29
7	9	3	12
8	12	3	15
9	7	1	8
10	3	1	4
11	1		1
12	1	2	3
16		1	1
<b>Total</b>	<b>351</b>	<b>91</b>	<b>442</b>

**Table III.** Analgesia in labor

	<i>Patients with hypnosis*</i>		<i>Patients without hypnosis</i>	
	<i>Total milligrams</i>	<i>Average number milligrams per patient</i>	<i>Total milligrams</i>	<i>Average number milligrams per patient</i>
Demerol	5,100	14.5	5,950	65.4
Barbiturates (Seconal or Nembutal)	200	0.57	3,000	33.0

\*Total number of hypnosis patients with no other analgesia or anesthesia at any time, 267.

**Table IV.** Gestational age at the time of delivery

Gestation age (weeks)	Number of patients		Total
	with hypnosis	without hypnosis	
44	1		1
43	5	1	6
42	24	1	25
41	28	1	29
40	206	74	280
39	24	8	32
38	26	2	28
37	11	2	13
36	7	1	8
35	1		1
34	4		4
33	1		1
32	5	1	6
31			
30			
29			
28	1		1
27	2		2
26	2		2
25			
24			
23			
22	1		1
21	2		2
Total	351	91	442

**Table V.** Gestational age at time of delivery

	Total deliveries		Per cent of all deliveries
	Total		
Postmature (over 42 weeks)	7		1.60
Mature (38 to 42 weeks)	394		89.13
Premature (under 38 weeks)	41		9.27

**Table VI.** Operative interference

	With hypnosis		Without hypnosis		Total	
	No.	%	No.	%	No.	%
Cesarean section	8	2.3	6	6.5	14	3.1
Low mid-forceps	5	1.4	0		5	1.1
Low forceps	93	26.5	16	17.5	109	24.6
Episiotomy	228	65.0	45	50.0	273	61.7
Lacerations	5	1.4	8	8.8	13	3.0
Pitocin	23	6.5	3	3.3	26	6.0

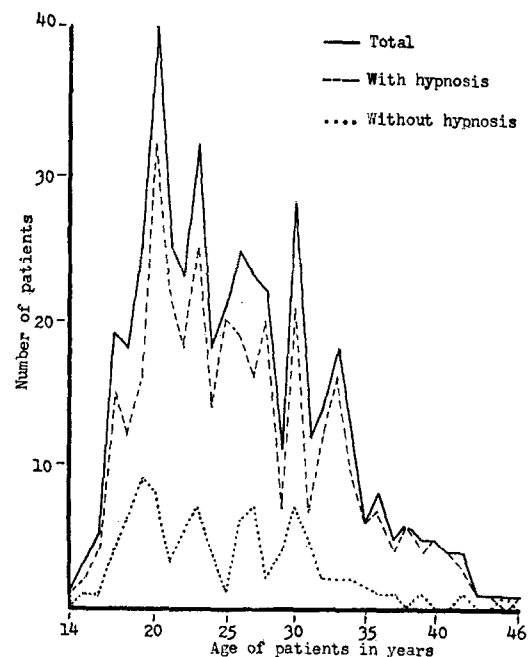
visualization techniques.<sup>19</sup> Through casual conversation I learned of activities and experiences which the patient had enjoyed in the past. I then asked her to close her eyes and by means of a series of graded suggestions aided her into hallucinating a similar experience.

I used the permissive approach with most patients, the naturalistic<sup>9, 10</sup> or cooperative with the remainder. In either case, I quickly shifted to the authoritarian<sup>25</sup> approach at the moment of delivery if this was needed to intensify the anesthesia.

Analgesia was used whenever requested by the patient, in prolonged labor, and on occasions when the obstetrician's presence was required elsewhere. Suggestions for posthypnotic comfort, for or against lactation (to conform with the patient's previously expressed desire), and time distortion<sup>6</sup> (so the patient would remember the whole delivery period as but a few moments) were usually given. Amnesia was rarely suggested but often manifested.

**Results**

Table I summarizes the number of patients experiencing the various types of an-



**Fig. 2.** Age of mother. Oldest, 46; youngest, 14; mean, 30; average, 25.88.

**Table VII.** Length of labor

	<i>Primigravida</i>			<i>Multigravida</i>		
	<i>Without hypnosis</i>	<i>Hypnosis without previous instruction</i>	<i>Hypnosis with previous instruction</i>	<i>Without hypnosis</i>	<i>Hypnosis without previous instruction</i>	<i>Hypnosis with previous instruction</i>
Longest (hours)	33.0	39.4	28.0	25.49	37.75	30.8
Shortest (hours)	3.21	3.03	2.4	0.5	0.46	0.93
Mean (hours)	18.1	21.2	15.2	13.0	19.1	15.86
Average (hours)	10.56	12.2	11.94	8.1	8.2	7.38

esthesia. This is depicted graphically in Fig. 1. Additional anesthesia was furnished 23 hypnosis patients only because they so requested. It was never withheld. Apparently conditioning made little difference in this particular group. Multiple anesthesia meant local and inhalation anesthesia. Fig. 2 and Table II show age distribution and gravidity of patients in the hypnosis and the non-hypnosis groups, respectively. These show a fairly regular distribution despite the fact that this paper presents a post hoc study of

hospital records. Table III shows the statistically significant small amount of analgesia given hypnosis patients in comparison with those patients utilizing chemoanesthesia. This is more significant when one considers that only half the hypnosis patients were conditioned and that 50 to 100 mg. meperidine (Demerol) was given terminally intravenously to a number of patients for the purpose of narcohypnosis.

Tables IV and V show gestational age in each group. Of 41 patients delivering

**Table VIII.** Infant deaths

No.	Hospital No.	Patient	Maternal age (years)	Gestational age (weeks)	Maternal gravidity	Anesthesia	Pre-anesthesia sedation	Infant	
								Weight (grams)	Length (centimeters)
1	M 88	W	27	40	vi	Hypnosis	--	3,118	47
2	H 8	P	41	40	vi	Hypnosis	--	3,431	51
3	H 109	C	19	40	i	Pudendal block	--	3,260	48
4	H 197	T	23	21	vi	Hypnosis	--	600 est.	--
5	H 163	G	30	27	iii	Hypnosis plus postdelivery procaine local	--	1,247	37
6	M 80	A	40	40	v	Cyclopropane	--	4,451	56
7	M 56	E	23	38	iii	Hypnosis	Demerol, 50 mg.	2,310	--
8	H 160	P	23	40	ii	Hypnosis	--	2,353	46
9	H 177	S	17	21	ii	Hypnosis	--	822	34
10	H 240	R	23	22	iii	Hypnosis	Demerol, 100 mg.	595	28
11	H 225	F	33	40	vii	Procaine local	--	3,529	49
12	H 226	C	29	40	iv	Hypnosis	--	2,410	43
13	H 82	S	21	32	i	Hypnosis	--	1,276	39
14	H 82	S (twin)	21	32	i	Hypnosis	--	1,133	38
15	M 206	K	21	32	ii	Hypnosis	--	1,361	39
16	H 29	R	18	26	i	Hypnosis	--	1,545	42
17	H 214	R	19	34	ii	Hypnosis	--	1,701	43

premature infants only 4 received chemoanesthesia, none under 32 weeks' gestation.

Table VI shows the frequency of operative interference. Eight cesarean sections, 98 forceps deliveries, 228 episiotomies, and 5 laceration repairs were performed without chemoanesthesia. The percentage of each type of operative interference except cesarean section was higher in the hypnosis group. This may have been due to more difficult problems encountered.

Table VII shows lengths of labor. There is no statistically significant difference between the three groups. This is at variance with much of the literature.<sup>1, 7, 16, 18, 23, 24, 26</sup> This discrepancy may have resulted from my use of hypnosis as a terminal anesthetic and not for labor analgesia in most cases.

Table VIII lists each infant death separately. Only one infant (Case 12) died of a cause which might be attributed to maternal anesthesia<sup>23</sup> and this one's mother re-

ceived no chemical analgesia or anesthesia. There were no maternal deaths.

Table IX shows that 14 patients or almost 3.2 per cent had cesarean sections. Two were performed for other physicians, leaving a corrected section percentage of 2.7. Eight of these were performed because of previous sections. Three were initial sections due to cephalopelvic disproportion. One was for placenta previa centralis, one for abruptio placentae, and one for a ruptured uterus with transverse arrest when first seen in the hospital. The three performed because of cephalopelvic disproportion were all in primigravidas. The remaining 11 patients were all multigravidas. Eight of the 14 patients, or 57 per cent, were operated upon and delivered under hypnosis. The youngest patient undergoing cesarean section was 17 years old and the oldest was 41. Three patients showed evidence of toxemia. The gestational age varied from 26 to 44 weeks. Infant weights varied from 1,247 to 4,451

<i>Age at death</i>	<i>Maternal data</i>	<i>Infant data</i>
-	1 abortion	Macerated, true knot in cord
-	-	Deadborn; aspirated meconium
-	Temperature 100.2° F. one day post partum	Thrombosed cord, fetal heartbeat absent
-	5 abortions; syphilis with active treatment	Deadborn
-	One previous stillbirth; blood pressure 170/110; 4-plus albuminuria; temperature 100° F. for 5 days post partum	Intrauterine death, abruptio placentae; cesarean section
-	First delivery by cesarean section; next 3, including twins, vaginally; temperature 100.4° F. one day	Ruptured uterus; cesarean section with hysterectomy
5 days	-	Multiple congenital anomalies; necrotic eviscerated bowel, resected
4 days	-	Cloaca, operated; multiple congenital anomalies
12 hours	Temperature 100° F. one day	-
2 days	-	-
1 day	2 abortions, 1 stillbirth	Transfusion reaction, Rh negative
6 days	-	Lobar pneumonia
1 day	-	-
2 days	-	-
18 hours	-	Hyaline membrane
6 hours	-	-
1 day	First delivery at 6 months; baby lived 6 hours	Marginal placenta previa

Table IX. Cesarean sections

No.	Hospital No.	Patient	Maternal age (years)	Gravidity	Gestational age (weeks)	Indication	Hypnosis	
							With	Without
1	HA 4357	BM	27	iii	40	2 previous sections		1
2	HA 5088	RP	41	vi	37	Previous section	1	
3	HA 5883	RM	36	iv	40	Previous section, deadborn		1
4	HA 6108	MS	21	iv	39	2 previous sections		1
5	A 2026	DM	32	iv	39	Previous section		1
6	A 3120	GC	37	ix	38	Previous section	1	
7	A 4232	IS	28	ii	39	Previous section, cephalopelvic disproportion	1	
8	A 6625	JB	23	ii	40	Previous section, Justo minor	1	
9	HA 3200	DT	20	i	40	Cephalopelvic disproportion		1
10	A 4429	PR	23	i	42	Cephalopelvic disproportion	1	
11	A 5506	AR	17	i	44	Cephalopelvic disproportion, Justo minor	1	
12	A 4446	DG	36	ii	26	Placenta previa centralis	1	
13	HA 7359	RG	30	iii	27	Abruptio placentae, intrauterine death	1	
14	A 2935	KA	26	v	40	Ruptured uterus, transverse arrest		1

grams. Three infants were deadborn. There were no maternal deaths in the patients undergoing cesarean section or in any patients in the entire series of 442.<sup>22</sup> Three patients in this series had vaginal delivery following previous section. One had this history and terminated with a ruptured uterus, the only one in this series.

#### Comment

All patients were told, some repeatedly, that the primary objective of good obstetric care is a normal healthy mother and a nor-

mal healthy baby and that the secondary objective is maximal comfort for the mother and minimal sedation for the unborn infant. They were also told that chemical analgesia and anesthesia would be available if needed during labor and delivery but that the need would be minimal or probably entirely absent. Frank and frequent discussion increased the rapport between patient and physician. It made patient care a pleasant experience.

Hypnosis was uniformly successful in the control of hyperemesis.<sup>14</sup> It yielded excel-

<i>Chemical anesthesia</i>	<i>Infant</i>		<i>Toxemia, morbidity</i>	<i>Previous pertinent history</i>
	<i>Weight (grams)</i>	<i>Length (centimeters)</i>		
Procaine, local, Pentothal	3,061	47	Temperature 100.4° F. two postoperative days, post-operative hemorrhage	
None	3,061	46	3-plus albuminuria, blood pressure 170/100	Pyelonephritis, 2 still born, 1 premature, 1 abortion, hypertensive heart disease, 1 full term
Procaine, local	3,175	48		1 abortion
Procaine, local, followed by N <sub>2</sub> O <sub>2</sub>	4,111	52	Temperature 100° F. one day post partum	1 abortion
Pentothal Sodium	3,841	54		2 abortions, previous stillborn, 2 day labor, high blood pressure, albuminuria
Cyclopropane post delivery	2,530	46		4 abortions
Novocaine, Pentothal post delivery	3,785	52		Infertility problem, married 8 years, Rh negative, one still-born
None	3,685	50		
Procaine local	3,969	52		
Procaine and Pentothal post delivery	4,437	56	Temperature 99.6°, 99.8°, 99.0° F. on three days	Long test of labor
Pentothal, post delivery	4,890	55	Temperature 99°, 100° F. on two days	
Procaine, local, Pentothal post delivery	1,361	41	Prior perforation of membranes, temperature 104° F. and hemorrhage just prior to section	Previous delivery with hypnosis, both children now living
Procaine, local, post delivery	1,247	37	4-plus albuminuria, blood pressure 170/110	One stillborn, one liveborn
Cyclopropane	4,451	56	Blood pressure, 160/120, temperature 100.4° F. first day after operation	First delivery section, 3 deliveries vaginally including twins, hysterectomy this time

lent results in the control or promotion (as desired) of lactation and in the production of postpartum comfort.

Hypnosis was usually used for terminal labor and delivery. This may account for the failure to shorten labor in this series as contrasted with other reports in the literature.<sup>1, 7, 16, 18, 23</sup>

The charts on age and gravidity show this to be a fairly good control series.

The use of Demerol intravenously,<sup>11, 12</sup> terminally in labor, led to excellent narco-hypnosis in a number of patients and served

to improve the percentage of successful anesthetics. Terminal shifting from the permissive or naturalistic approach to the authoritarian also contributed.

Hypnosis was used exclusively for the purpose of symptom removal. This is equally true of chemical analgesics and anesthetics. As such it served most effectively to reduce or eliminate drugs and fetal narcosis.

Operative procedures were easily and satisfactorily performed under hypnoanesthesia.

A barbiturate, usually 100 mg. Seconal

(Lilly), given once orally postdelivery served to control a heightened alertness and inability to sleep. This inability to sleep appeared to be similar to that encountered by a person who has experienced a long period without sleep. This condition disappeared spontaneously after 8 to 12 hours.

There were no infant deaths positively attributable to anesthesia.

Hypnoanesthesia required more of the obstetrician's time than did conventional analgesia and anesthesia.

### Summary

1. Hypnoanesthesia was used in 4 out of 5 obstetric deliveries, freely in operative ob-

stetrics, and in 8 out of 14 cesarean sections.

2. It was successful as the sole anesthetic in 93.5 per cent of all deliveries and in 8 cesarean sections.

3. It was satisfactorily supplemented by chemical anesthesia in the other 6.5 per cent.

4. It required more of the obstetrician's time than did chemoanesthesia.

5. The addition of hypnoanesthesia adds one more tool to the armamentarium of the obstetrician-anesthetist.

6. Elimination of maternal and fetal deaths due to chemoanesthesia makes hypnoanesthesia a worthwhile addition to the obstetrician's armamentarium.

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