Childbirth Experience in the Negev – The Southern Region of Israel

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Israel is a small country of great diversity. The winter in the north is cold and snowy, yet 5 hours drive to the south the weather is sunny and dry. It takes an hour to drive from the Mediterranean Sea to the dry deserts near the border with Jordan (Fig. 1). Even more diverse than the weather are the people living in Israel. According to the Statistical Abstract the population of Israel in 2008 was 7.2 million, 75% of whom are Jewish (of different cultural backgrounds), 20% Arabs (Muslims, Christians, Druse and Bedouins) and "others" who are mainly newcomers without religious classification.

In this chapter we will focus on the southern region of Israel, the Negev. We will discuss the childbirth experience in this region as we see it over years of clinical work and research. In this area there is a unique opportunity to compare women of two ethnic groups differing in lifestyle, culture and values associated with parity: Jewish and Bedouin women. The Bedouins have their roots as nomadic tribes in the desert. Today, half of the Bedouin population of the Negev live in semi-sedentary settlements and the rest live in several small towns. National health services in Israel provide perinatal care for all women. The Soroka Medical Centre in Beer-Sheva (the capital city of the Negev) serves as the sole hospital in the region. Soroka is affiliated with the Ben Gurion University of the Negev and is a teaching hospital and the only tertiary health services provider in its area. Almost all births take place in the hospital. In the following review we will describe the birth experience in our region in aspects of pain perception and acceptance of various modes of analgesia, refusal of treatment by parturient, and rates of prenatal care and home birthing.

Pain

Labor is considered to be one of the most intense, painful and significant experiences in life, across cultures. The expression of pain is thought to be different according to ethnicity. As obstetricians practicing in Beer Sheva, we decided to explore this

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Fig. 1 Map of Israel

issue more thoroughly with the notion that understanding the parturient's suffering is essential for proper management of labor and labor pain. We were particularly interested to see whether:

(1) Different ethnicities differ in pain perception and whether these have physiological or biochemical bases.

Fig. 2 A religious Jewish doctor treating a religious Bedouin woman

(2) The mostly Jewish staff may be responsible for an underestimation of pain because of cultural and language barriers.

In a study performed in 1997 at the Soroka Medical Centre, during a six-month period, two aims were defined. The first aim was to compare the childbirth experience of two different ethnic groups living in the Negev: Jewish and Bedouin women. The second aim of the study was to compare the self-reported pain to that reported by the attending obstetrician and midwife, i.e. the exhibited pain (Sheiner et al. 1999). As most of the medical staff was Jewish, this comparison provided an opportunity to investigate the influence of ethnic differences between patient and care provider on perception of pain (Figs. 2 and 3). The pain intensity level was assessed by the parturient and by the physician and the midwife at the same time, in the initial active phase of labor (i.e. 3–4 centimeters dilatation), using the visual analog scale (VAS). The VAS is a pain intensity numerical scale from zero meaning "no pain" to ten meaning "worst possible pain". On the same scale there were five pictures of face expressions: below the zero, a smiling face, and below the ten a crying face. The VAS was selected because it is a simple tool for comparing pain intensity among women with different levels of education, social background and language. Moreover, it can be used quickly with minimal instruction to subjects, a great advantage in the situation of a painful labor.

Although the self-assessments of pain intensity levels at the initial active phase of Jewish and Bedouin parturient were similar, the medical staff perceived that Bedouin women experienced less pain than Jewish women. The trend of the attending staff to underestimate the parturient women's pain was more common in the

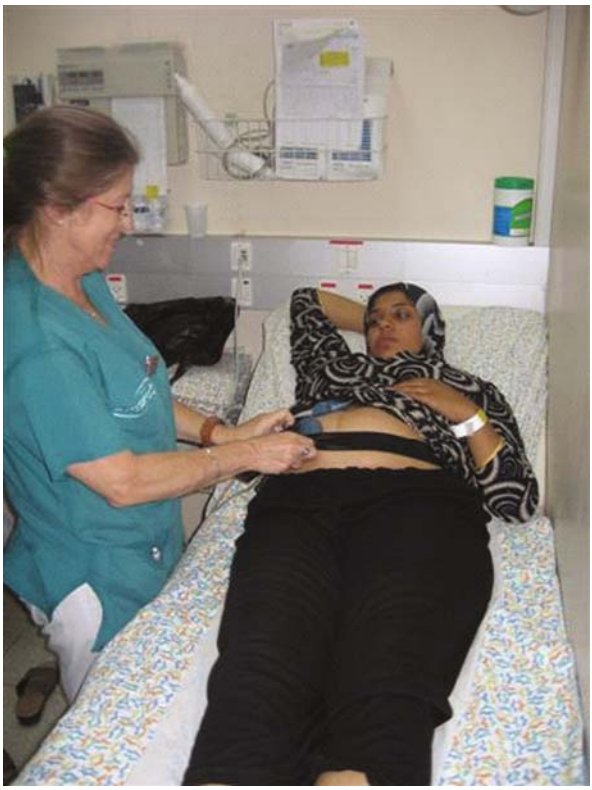

Fig. 3 Reception of delivery room

Bedouin than in the Jewish subjects. Moreover, in 60% of the Jewish patients, assessment of pain reported by the parturient and her care providers were equal, but agreement was observed only in about 30% of the Bedouin parturient. Another finding was that increased parity (the state of having given birth), older maternal age and level of religious observance were all negatively associated with pain intensity scores (Sheiner et al. 1999).

Because of inaccuracies in evaluating the subjective sensation of pain, a few methods were developed in an attempt to more objectively qualify and quantify the degree of labor pain. The Verbal Rating Scale (VRS) is a numerical scale. Patients are asked to verbally rate their level of perceived pain intensity with the zero representing one extreme of "no pain" and the 10 representing the other extreme of "the worst pain possible". Another example is the dolorimeter which is a pressure algorimeter. Using this tool pressure is increased gradually over certain commonly used pressure points called "tender points" over the body. When the patient describes the sensation as painful the amount of pressure is recorded and regarded as the pressure pain threshold for the specific tender point. Using those two tools, our group performed a study that was aimed to define pain threshold over a period of

time. Included were women in full term, low risk pregnancies, who were tested before and during labor and at the early postpartum period (Ohel et al. 2007). Differences in pain threshold among Jewish and Bedouin women were minor, and overall, pain threshold was comparable between the groups. Although the two groups of parturient differed in lifestyle, culture, values and socio-economic status, the self-assessments of pain intensity levels of Jewish and Bedouin parturient in the initial active phase of labor, again, were similar.

Epidural Analgesia

The use of epidural analgesia has increased greatly in the last decade. This mode of pain relief during labor is a tool of vital importance in pain management during labor, and it is highly recommended in our institution. Despite this we have observed a low rate of acceptance of epidural analgesia by our parturient women. Data collected from 25 labor and delivery rooms in Israel by the Israeli Society for Maternal-Fetal Medicine show that during the year 2006 the median rate for epidural analgesia performed was 57.7% for all vaginal deliveries. In our medical center the rate is around 20%. To better understand this apparent discrepancy a study was conducted at our hospital aiming to define the obstetric and sociodemographic factors characterizing parturient women who were offered and who accepted epidural analgesia (Sheiner et al. 2000). In addition, an attempt was performed to assess if the severity of pain, as exhibited by patients and their subjective perception of it, predicts physicians' recommendations and patients' acceptance of intrapartum epidural analgesia. Of the 447 parturient women interviewed, epidural analgesia was offered to 393 patients (87.9%) but it was administered to only 131 (29%). Patients who were offered epidural analgesia were significantly younger (26.5 vs. 32.8) were of Jewish ethnicity (63.4 and 11.1%), and had fewer pregnancies and deliveries (2.7 vs. 7.8 pregnancies, 2.3 vs. 7.1 deliveries). In this group, women had higher levels of education, were more likely to have participated in a childbirth preparation course, tended to define themselves as secular and were more likely to have a significant other present during labor than those who were not offered epidural analgesia.

The severity of pain as assessed by the medical staff, as well as low parity and low maternal age, were statistically significant factors affecting an offer of epidural analgesia. After adjustment for parity and maternal age, ethnicity no longer predicted physicians' tendency to offer epidural analgesia.

Decisions Regarding Termination of Pregnancy

Another aspect of pregnancy care is the prenatal evaluation of the fetus and dilemmas that arise following detection of fetal malformations. Abortion for major congenital malformations is legally obtained in Israel through special hospital based committees. The decision to terminate a pregnancy is stressful emotionally and involves psychological, cultural and religious conflicts. This is demonstrated in the

population of our region with the Israeli Bedouin Arabs. This culture attributes great importance to high fertility; the families are large and there is a high level of inbreeding. In order to understand better the dynamics regarding termination of pregnancy, a study involving nearly two hundred Bedouin women who were diagnosed as having a malformed fetus with major congenital defect was conducted. They were all referred to a third level ultrasound clinic in the Soroka Medical Center during the years 1990–1996 (Sheiner et al. 1998). The majority (72%) of couples were consanguineous and half of them were first-degree cousins. This incidence of inbreeding was higher than that known for the Bedouin population at large, and reflects the high risk of this group for genetic and autosomal recessive disorders. In 125 cases the fetal disorders were diagnosed before the 24th week of pregnancy and they, therefore, had the option to interrupt their pregnancies, as opposed to 63 cases diagnosed in advanced pregnancy beyond 24 weeks gestation. Of the 125 cases, 49 couples decided to terminate the pregnancy and 76 elected to continue it. Factors significantly associated with the decision to terminate the pregnancy were earlier gestational age at diagnosis, previous uncomplicated pregnancies, families with an affected child and the diagnosis of central nervous system malformations. These findings show that in this high-risk traditional population more than half of the couples will not opt for termination of pregnancy mainly because of the advanced stage of pregnancy. The reason for this delay in diagnosis may be partly due to underutilization of prenatal diagnostic services due to cultural reasons.

Lack of Prenatal Care and Refusal of Treatment in Obstetrics

Lack of prenatal care has been defined as less than three prenatal visits at any prenatal care facility. Being a common situation in our region, a previous study had investigated whether it is actually an obstetric hazard (Twizer et al. 2001; Sheiner et al. 2001). The study population consisted of 7,600 Bedouin women lacking prenatal care. They were 21% of the 36,281 singleton deliveries of Bedouin women giving birth in the Soroka University Medical Center in a time period of 7 years (Twizer et al. 2001). The study compared labor and delivery outcomes in women without prenatal care to outcomes in women who had some prenatal care. Mothers in the lack of prenatal care group tended to be in the extremes of their reproductive cycles (<18 years, >35 years) and had more children than those receiving prenatal care. There were more deliveries prior to 32 weeks of gestation in the lack of prenatal care in comparison to the comparison group. The incidence of low birth weight (<2,500 g) in the lack of prenatal care group was higher than in the group of patients with prenatal-care. Women who did not receive adequate prenatal care had statistically significant higher rates of antepartum fetal death, intrapartum fetal and postpartum fetal death. Lack of prenatal care is an independent contributor to perinatal mortality and low birth weight in the traditional Bedouin society.

Home Birth and Accidental Out of Hospital Deliveries

Out of hospital deliveries can be planned or unplanned and attended as compared to unattended out-of-hospital deliveries (Sheiner et al. 2004, 2002; Hagar et al. 2005). In a study performed in our institution the attendance of medical personnel in accidental out-of-hospital deliveries did not improve outcome (Sheiner et al. 2004). Another study determined maternal characteristics and perinatal outcomes of unattended out-of-hospital deliveries. A population-based study including all singleton deliveries between 1988 and 1999 was conducted (Sheiner et al. 2002). Maternal characteristics and pregnancy outcomes of accidental out-of-hospital births were compared with those of women who delivered in the hospital. The incidence of unattended, out-of-hospital deliveries was 2%. Multiparity [having many children], Bedouin ethnicity and lack of prenatal care were independently associated with out-of-hospital deliveries. Parturient women who delivered out of hospital had significantly higher rates of perinatal mortality.

Cultural and Traditional Aspects of Childbirth in Israel

The place of the midwife during labor and delivery is of enormous importance. Women expect support and encouragement during labor from a qualified midwife. The midwives give spiritual support in addition to technical issues. During the 20th century, there was a change from home delivery to giving birth in hospital and maternal wards. This happened at the same time as there were advances in medicine and a reduction in maternal and fetal mortality. New technologies of pain relief were introduced in those facilities. Although highly qualified midwives in Israel attend home deliveries, they do not have the tools for emergent interventions or resuscitation, if the need arises. Nevertheless, the trend towards giving birth in hospitals carries its price. Some caregivers pay less attention to emotional support and accordingly the couple's emotions and sense of control are neglected. There is a demand inside the delivery room, to let the parturient women choose who will accompany her during labor. At times, a demand to keep out the medical staff during labor if possible is rising. In low risk pregnancies women can ask for expectant management of labor and the medical staff will respect this request. This means that active management of labor, which is the norm in most university hospitals, and includes amniotomy[1] at the beginning of the active phase of labor, giving intravenous oxytocin to fasten and organize uterine contractions, etc. is withheld, allowing labor to take its course without interventions.

There are many myths and beliefs regarding labor pain. Genesis 3:16 is the passage usually quoted by those who believe women have been cursed to give birth in pain. After Eve was beguiled by the serpent and ate the forbidden fruit of knowledge, God said "I will greatly multiply your pain in childbearing; in pain (in sorrow thou shalt) you shall bring forth children". This is one of the most known sentences in the Torah and it is impressed deeply in Jewish culture. We interpret biblical passages

to explain human phenomena. “Sorrow” is interpreted as “pain” but today pain during labor is not inevitable. Even today women that give birth quietly and easily are said, mostly in religious communities, to be saintly, and this relies on the belief that the “sorrow” or “pain” is an ancient punishment, from the days of Eve (Klein et al. 1998).

Conclusion

We are fortunate to practice obstetrics in a highly diverse cultural population. Our impression was that the cultural background of our parturient women influences their behavior and management during pregnancy and labor, and has far reaching effects on perinatal outcome. In our series of studies focusing on cultural differences in obstetrics we have found in the Bedouin population that a high incidence of underutilization of prenatal care services is a marker of high-risk pregnancy. Such lack of prenatal care in our Bedouin population is associated with a higher rate of poor fetal growth and even perinatal death. The higher rate of consanguineous marriage in this population serves as a factor which directly influenced the rate of fetal maldevelopment and the need for termination of pregnancy. A most important aspect of labor, labor pain management, is also influenced by the culture of the parturient women and by cultural differences between caregivers and the parturient. Pain threshold before and during labor are similar in both Bedouin and Jewish parturient women. Nevertheless, the perception of pain as observed by our caregivers who were mostly Jewish was underestimated particularly in the Bedouin women. This aspect is not fully understood and warrants further studies, although it is already reflecting in our daily clinical practice.

Note

1. Artificial rupture of the amniotic sac surrounding the baby.

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