



Very rural obstetrics

*Linda Johannson, MD,
MSc, CCFP
Nelson, BC*

*Correspondence to: Dr. Linda
Johannson, 717 Hall St.,
Nelson BC V1L 1Z5;
ljohannson@yahoo.ca*

He came to the remote aid post early in the morning and was waiting outside when we opened the door. “Doctor saab, ownnoos,” “please come.” My medical partner at the Himalayan Rescue Association (HRA) aid post at Pheriche, Nepal (4272 m; population 100), and I followed him with our medical assistant–translator to a tiny stone hut nearby. His wife was in labour, he told us on the way, 4 days now and couldn’t take the pain. Could we please give her something? Our limited resources meant we couldn’t give what we were used to giving at home, but we could certainly give her something. The 4 of us entered the low-ceilinged dwelling, smoke-filled and chilly despite the wood and yak-dung fire burning in the corner, and promptly reduced the standing space by half.

Through the translator we determined that she was exactly on her 40-week due date, and had made the long trek down to the doctor at Kunde 3 times before in the pregnancy; everything was well. We also determined that this was the second child for this 21-year-old, and that the first delivery had been “difficult.” Details could not be obtained, but the happy 3-year-old running around, poking into everything, reassured us that it hadn’t been a disaster.

The contractions had started 4 days ago and now were regular, but only every 30 minutes. She had been lying in bed since the labour started, and the pain was getting very difficult. An ethnic Rai woman, she was extremely small, not sturdy and stocky like the local Sherpa women. The father was also a small man, and his job as a porter

took its toll on his young body. It registered that the Rai people, being from lowland Nepal, might not have the genetic advantage to altitude that might exist in the Sherpa people. However, the patient had become pregnant at this altitude and had had a previous successful pregnancy at high altitude, and she certainly wasn’t about to walk down to the Kunde hospital in this condition, so, as the Nepali people say, “ke garne?” — “what can you do?”

With a maternal mortality rate of 0.5% and an infant mortality of 8% in Nepal, we would do all we could. With all the men, husband and neighbours shooed out of the tiny 1-room home, I examined the mother and baby — small, as expected, but with cephalic presentation and an engaged head. Her complete lack of body fat made it easy to hear the fetal heart with the bell of my stethoscope — 130 and reassuring. With the male interpreter shouting through the door, I explained to the patient that I wanted to do an internal exam. Peeling back 4 layers of wraps and dresses, I discovered she was 4-cm dilated and that the fetal head was just at the ischial spines, so I figured we had some time. With the patient dressed again, the men came back in to hear the news. Still some time to go. I decided I would come back in about 4 hours to check on her progress. In the meantime, I suggested she try to go for a walk and let gravity help get things moving. From our meagre kit we were able to offer her a shot of meperidine, but no anti-nauseant. She accepted this and wrapped herself back up in her nest of blankets.

After lunch, the translator and I wandered over to the hut again. Still a good fetal heart, but just 6 cm and only

station + 1. She had not gone for the walk and the unbuffered meperidine had made her nauseous. Back at the aid post we converted our storage room into a delivery suite for the first delivery in HRA history. Elaborate preparations were made for every eventuality, including fetal intubation, cardiac resuscitation, lightning-quick fluid boluses, and even uterine prolapse and retained placenta. Our portable suction device was even modified to provide nasal and oropharyngeal suction of the baby at the perineum. We didn't have everything we needed, but everything we had was there. We were prepped and ready.

At 4 pm the patient came to the aid post. She felt it was time, but it was just 8 cm — still station + 1. No worry, now that she was safely here and could go as fast as she liked; we were ready. Five o'clock, 9 cm, station + 1; 6 pm, still 9 cm, station + 2 with bulging membranes. I didn't want to rupture them in that environment, but decided I wouldn't let her push with intact membranes. I'd made that mistake as a med student and received the inaugural amniotic fluid high-pressure shower. Nevertheless, I thought I had time for a quick bite of supper.

At 6:15 pm the quality of her screaming had definitely changed, so I rushed into our "delivery suite" to find mum squatting on a blanket on the floor with the baby's head already out. The others rushed in as I was collecting the newborn from the blanket, and they handed me towels and clamps and the like. We brought the newborn to our "baby table," a wooden bench padded with a Thermarest camping mattress, warm water bottles and a blanket. With no sterile towels and a 5°C room (the heating system at the aid post was broken), we wanted to move quickly. I was chilly in my down jacket and toque, so I knew he would be cold. His heartbeat was slow but perked up with stimulation, drying, warming and some blow-by oxygen. He cried only slightly, but was quickly examined and then brought back to the heat of his mother's chest.

The assistants had persuaded the patient to get up onto the table, and the placenta was easily delivered, followed by a gush of bright blood and clots. We had no oxytocin at the aid post, so this was indeed a "natural" birth. Vigorous uterine massage reduced the flow to a trickle, but the mother

adamantly refused to let me suture the 4 cm, second degree tear, and kicked at me and squirmed off the table. After long attempts at persuasion, I finally agreed to let it be, and, with her husband's help, she quickly rearranged herself on the floor with her baby bundled beside her in the blankets.

After making the lone inpatient room ready for the 2 of them, we transferred her over, but on the way I noticed her clothes and blankets were soaked in blood. I examined her again, and again the uterus expelled bright blood and clots when massaged, but it was rock hard and the flow stopped quickly. Nevertheless we started an IV and oxygen. We were changing the patient's dirty, wet clothes when she swooned. More fluids, and yet another exam. She was weakly resisting the exam this time, while trying to avoid fainting, but we felt we absolutely needed to see where the blood was coming from.

After a quick exchange with the translator and the husband convinced us that we had the patient's consent, my partner, an intensive care–internist–anesthetist by training, administered a very small dose of IV ketamine (our only sedative) and I was able to pack the vaginal vault, suture the tear and do a thorough examination.

The tear wasn't bleeding, the cervix wasn't lacerated and upon removing the packs, there was only a trickle from the uterus. She recovered from the anesthetic in a few minutes and continued to do well. We checked on her every hour or 2. The bleeding remained at just a trickle and her vital signs were favourable and stable all night. She even got up to use the bathroom a couple of times on her own.

In the morning all was well and she was doing fine off the oxygen and the IV. The baby was breastfeeding well and everyone was happy. Family and friends arrived to take the patient home, so we quickly weighed and measured the new arrival (2900 g, 46.5 cm). Some happy pictures were shot in front of the aid post and a hand-written birth certificate was issued. The charge for this intensive treatment and all-night vigilance by 2 doctors? Two hundred rupees or about Can\$4. The reward for being part of the miracle? Priceless.

Competing interests: None declared.