

CARMEN AND ANDREA

I have seen many gay couples in my practice over the years. In medical lingo we call them "same sex couples", when we describe their medical history. Most are female, though, on occasion, a male couple may come by for a consultation.

Carmen and Andrea were obviously a lesbian couple. Carmen was Hispanic, in her late thirties and clearly the dominant partner. She had pitch black hair that was cut short in an intentionally male pattern. In our first consultation, and almost at every other encounter thereafter, she wore a biker leather jacket, jeans and cowboy boots. A big key chain was affixed to her belt, generating a very characteristic noise which allowed me to know that Carmen was outside my office, even if the door was closed.

Carmen had the dark skin and characteristic features of a woman of Latin American origin with considerable native American Indian blood. I later learned she was a second generation Mexican-American born and bred in Chicago. Her parents had immigrated to the city in the early 50's, when Chicago's south side was still the center of the nation's steel production. Her father worked in the steel mills until retirement, raising six children, five of which, Carmen included, grew up to be college graduates.

Carmen had earned a MBA degree from Loyola University and was working as an independent auditor. She had met Andrea on one of her jobs, auditing a medical practice. Andrea, a nurse by profession, was the clinical office manager at the site. By the time they came to my office, they had been a couple for five years and had unsuccessfully attempted to get Carmen pregnant for close to two years.

Andrea was very different from Carmen. She was petite, had long brown hair and a light complexion. Her most obvious characteristic were her dark blue eyes, framed by the delicate features of a beautiful face, characterized by impeccably chiseled symmetrical features.

The contrast to Carmen could barely be more pronounced: while Carmen was loud and opinionated, Andrea was not only soft spoken but rarely volunteered words. While Carmen was large and somewhat crass, Andrea was small and always impeccably put together. In short, had they been husband and wife, they would have been one of those couples where everybody asks, “what does she see in him?”

Working with some of the self-help books, which have become popular in the gay community, Carmen and Andrea had tried for over a year to conceive on their own. That meant they performed initially intravaginal and later intrauterine inseminations at their home, using a gay friend’s semen. When this didn’t work, they consulted a gynecologist who put Carmen on a fertility medication, called clomid, and encouraged them to continue their inseminations. Four months later, they gave up on performing the inseminations at home. Their gynecologist was not willing to work with their friend’s fresh semen and insisted on the use of frozen sperm from a sperm bank.

Another five insemination cycles later, they still had not established pregnancy and that was when they decided to come to see me. When I first met them in consultation, I was not only struck by the differences in their appearances and personalities, but also by their age difference. Carmen looked her age at 39, while Andrea appeared much younger than her 33 years would have suggested. In almost parental fashion, Carmen immediately assumed control of the conversation.

“I am Carmen” and pointing towards Andrea, who sat to her left, “ and this is my partner Andrea.” She then continued to present their past social, as well as medical histories in very much detail, while Andrea sat quietly next to her.

It was Carmen who wished to conceive at this point, though their intent was for them both to have children. Because they perceived Carmen's reproductive years to be limited, they had reached the decision that Carmen should go first.

We rather quickly were able to discuss treatment options because they were well informed. At least Carmen seemed very knowledgeable, though I was less able to judge Andrea at that point, since she, more or less, remained mum. Carmen represented that, even before seeing me, they had decided to go with in vitro fertilization (IVF) since at this point this seemed the most likely treatment that would lead to success. I fully concurred with that assessment and, so, we decided to proceed into IVF as quickly as possible.

Before an IVF cycle can be initiated, a certain amount of pretesting is required. It usually involves the female as well as her male partner. However, in this case there, of course, was no male partner.

This meant that semen had to be procured. Carmen and Andrea had previously ordered semen from various sperm banks. Since none of those led to pregnancy, I recommended that they choose a new donor. Our center primarily worked with a California-based sperm bank, which offered a large selection of carefully prescreened donors.

Because of the risk of sexually transmitted diseases through the use of donated sperm, the rules for the clinical use of semen have been dramatically tightened over the last decade. Physicians are no longer permitted to use fresh semen and have, therefore, to rely on the services of sperm banks. These banks obtain semen samples, after a careful prescreening of the donors, freeze those for a quarantine period of at least six months, at which time the donor is retested for HIV-virus. This protocol virtually guarantees the safety of the semen samples in every respect because, if the donor at time of donation was recently infected and, therefore, still negative in routine AIDS testing, after a six-month quarantine, he would be positive. His donated samples would then, of course, be discarded.

In the gay community, where self-insemination is common, fresh semen is still

quite often utilized. When physicians perform inseminations they, however, uniformly will insist on the use of quarantined sperm and this usually means the utilization of a sperm bank.

Carmen and Andrea had gone through the process of semen selection before, when they tried donor insemination in the physician's office. They were now once again, pouring over the list of potential donors which the cryobank we were utilizing supplied monthly.

I usually did not participate in this selection process and left it to the patients, who received advise and help from one of our staff members. In this case I was, however, curious to see how Carmen and Andrea would select their donor. As it turned out, they had decided on the process ahead of time. Since it was Carmen's turn to conceive, they had concluded that the donor should have physical characteristics, which mimicked those of Andrea. Once Andreas would attempt pregnancy, the donor would have to resemble Carmen.

Andrea's father was Irish, while her mother's family came from Normandy, the part of France where ethnic ancestry was often more British than French. This combination gave Andrea her very light skin and piercing blue eyes which, if one physical characteristic had to be chosen, was clearly the defining feature of Andrea's face.

Carmen, even more so than Andrea, was determined to find a donor match that would mimic Andrea's complexion and especially, her eye color. She felt that their best choice would be in finding a donor with similar family background to Andrea's. They settled on donor #2644125, a 24-year-old medical student, who in the catalogue was described as 5 ft. 11 inches tall, 165 pounds heavy, with light brown hair and blue eyes. His skin type was described as the lightest amongst four possible shades and his ethnicity was Irish, Welsh and English.

We ordered two vials of the donor's semen for Carmen's first IVF cycle and asked the sperm bank to reserve four more for potential future use. This meant the bank would not sell those samples without notifying Carmen and Andrea first, to give them the opportunity to purchase these samples.

Six weeks following our initial consultation, Carmen was in her first IVF cycle. Approximately four weeks later, she had reached egg retrieval, at which time, while the patient is sedated by an anesthesiologist, we extract eggs from her ovaries. This is done by inserting a long needle under ultrasound guidance, through the vagina, into the ovary. The eggs float within on ultrasound clearly definable round spaces, called follicles, which are filled with so-called follicular fluid. It is this fluid that is actually aspirated through the needle and hopefully contains an egg.

Not every follicle gives an egg. In fact, only about 50 - 60 percent of the follicles will allow us to retrieve an egg, though this number can fluctuate.

Carmen had only six eggs retrieved. Considering her age, this was not surprising, though still somewhat disappointing. As is usual the case, only a fraction of her oocytes did fertilize, when combined with sperm. Our expectation is that approximately 60 percent of eggs fertilize. In Carmen's case, only two out of her six eggs fertilized and went on to divide into embryos.

All of this was, of course, very disappointing for Carmen, her partner and us. When we reached the day of embryo transfer, three days after egg retrieval, no one was, therefore, very optimistic about achieving pregnancy. There were only two embryos for transfer and neither one was of great quality.

We base our quality assessment of embryos on two separate parameters: First, we determine how quickly an embryo divides. The quicker cell division takes place, the better the chance of that embryo to implant and to lead to pregnancy. Ideally, we would

like every embryo, by the third day after egg retrieval, to have reached eight-cell stage. This means that the embryo has divided into at least eight cells. Carmen's two embryos had only reached four-cell and six-cell stage, respectively.

In addition, we define embryos based on their appearance into so-called "Grades", with Grade one denoting the lowest quality and five the highest. Carmen's embryos were both of Grade-three.

Our mood was, therefore, rather somber when I performed the embryo transfer. Carmen, lying in typical gynecological examination position on her back, with legs parted and a speculum holding her vagina open, was also unusually subdued. She politely responded to my questions and comments but her disappointment extruded quite obviously through her uncharacteristic restraint and quietness.

It was, paradoxically, Andrea who on this occasion seemed to assume control of the situation. She was sitting to the left of Carmen on a stool, holding Carmen's hand. "It takes only one embryo, Carmen," she said in her quiet, yet surprising determined voice, "and we have two."

"But they are no good," Carmen replied, referring to their slow division rate and rather limited quality, based on morphology.

Our embryologist discusses embryo quality in detail before the embryo transfer takes place. As a general principle, it is important to keep patients at all times correctly informed about what happens in their IVF cycle, so that expectations are managed properly. Embryo quality, however, also becomes a very important factor in deciding how many embryos to transfer. The younger the patient and the better the embryo quality, the fewer embryos we will transfer. Of course, the older the patients and the poorer their embryo quality, the more embryos (within limits) will be replaced in the uterus.

In Carmen's case the decision to transfer two embryos was an easy one: there were no more available. Considering the rather poor quality of those embryos, we might have placed as many as four, had they been available.

In other cases, when more good quality embryos are available than we are willing to transfer out of concern for establishing high order multiple births, we will freeze excessive embryos for future use. Frozen embryos can be kept frozen in such a cryopreserved state indefinitely. Andrea was obviously determined to keep hopes up because, this time, she did not leave Carmen with the last word. "Just because the embryos don't look perfect, does not mean they can't lead to pregnancy," she said. "Let's hope for the best and let's stay optimistic. After all it takes only one embryo," she repeated.

I, of course, added my own supportive comments, even though in my heart I knew how remote their pregnancy chances were in this cycle.

The embryo transfer itself went uneventfully. In such a transfer, the embryologist places the embryo, in a short column of growth media, at the tip of a thin catheter. This catheter is then carefully fed through the cervix into the uterine cavity. Once properly in place, by pushing the plunger on the syringe, the embryos are expelled into the uterus. The whole process is painless and, in fact, most patients don't even notice that the embryo transfer has taken place. As simple as this process may sound, it is absolutely crucial to the success of an IVF cycle. Many good embryos are wasted because of poor embryo transfers. The fact that Carmen's transfer went so smoothly was, therefore, the only encouraging news of the day.

After embryo transfer, the patient rests on the transfer table for 20 to 30 minutes and then returns to usual activity. Ten days later, a first pregnancy test can be obtained in order to determine whether any of the embryos have implanted.

To our pleasant surprise, 10 days after her transfer, Carmen, indeed, had a positive pregnancy test. Her pregnancy hormone values doubled appropriately over the next two days and then, once again, over the next two days. At that point, we were cautiously optimistic and told her to come back for an ultrasound a week later. Three weeks and two days after her embryo transfer, we for the first time saw a gestational sac in her uterus. She had a singleton pregnancy. One of the two embryos we had transferred had taken.

Another week later, we, for the first time, saw a fetal heart on ultrasound which, in our practice, usually means that the patient is ready to be discharged into obstetrical care.

Our involvement with Carmen and Andrea did not end here, however. Only four months after we had discharged Carmen into obstetrical care, both of them once again set across from me in an initial consultation. This time, the patient was Andrea. Carmen was having a very uneventful pregnancy. Because of her age, she had undergone an amniocentesis, which showed that the pregnancy was genetically normal. Since Carmen and Andrea did not want to know the baby's sex, her obstetrician had withheld that information. The normal progressing pregnancy had encouraged them, however, to speed up their plans about getting Andrea pregnant.

“We want five children, at least, - a big family,” Carmen said when I cautiously questioned their intentions of having two pregnancies in such close proximity. “Andrea will stay home and take care of the kids. It's not going to be a problem,” Carmen insisted.

Andrea was smiling quietly and nodding her head in support. They obviously had made up their minds!

As it turned out, they also had changed their minds. While originally the plan had

been to use a different semen donor, one who would reflect Carmen's ethnic background, they now had decided to stay with the same donor we had utilized for Carmen's pregnancy. The reason for their decision was that they wanted their children to be genetically related. By having the same genetic father, this goal would be achieved.

Andrea's medical history, in contrast to Carmen's, gave us the option of simply inseminating her, rather than having her go through IVF. Whether out of solidarity for Carmen's journey towards conception or for other reasons, Andrea insisted on going through IVF, as well. She felt pregnancy rates were so much higher with IVF than in insemination cycles that their desire to achieve pregnancy quickly mandated this approach. While Carmen and Andrea didn't mind having a twin pregnancy, they were concerned with a higher order conception. Neither wanting triplets or more, nor wishing to have to face a decision about selectively terminating one or more fetuses, they felt that IVF gave them better control over the multiple risk. They, therefore, insisted that Andrea also go through IVF and who was I to argue against?

Andrea's IVF cycle contrasted dramatically with Carmen's. She demonstrated an exceptional ovarian response to the fertility drugs. During retrieval we obtained 23 eggs, 17 of which fertilized. On the day of embryo transfer, we had 12 beautiful embryos, of which eight were at eight-cell and four at six-cell stage. All embryos were Grades three to five.

Andrea, at that point, had turned 34. Considering the excellent embryo quality, under age 35 years, our recommendation was to transfer only two embryos and freeze the remaining ten. Andrea was agreeable to that but Carmen wanted three embryos transferred.

"We wouldn't mind having twins," she insisted. "But if you transfer three embryos, Andrea may end up with triplets," I responded.

In the end Carmen, not surprisingly, convinced Andrea about transferring three and I had no choice but to give in.

Like Carmen, Andrea had an uncomplicated embryo transfer and, like Carmen, 10 days later, Andrea had a positive pregnancy test. However, unlike Carmen's, Andrea's pregnancy hormone level was very high, strongly suggesting that more than one embryo had implanted. And, in fact, on her first ultrasound a week later, we saw three gestational sacs. Fortunately, however, in the following week only two had continued to grow and demonstrated fetal hearts.

Andrea went on to deliver healthy twins, a boy and a girl, seven months after Carmen had given birth to a healthy girl. They still have nine of Andrea's embryos cryopreserved in our tanks and Carmen reminded me of the fact that they always wanted to have five children when she called me to tell me about Andrea's delivery. Considering the excellent quality of Andrea's frozen embryos and the couple's determination to have a large family, I have no doubt that they will be back soon to try again. And also I have no doubt they will succeed again.