

Giving Birth to a New Era for All

Augusto Semprini Cleans HIV From Infected Sperm, Making Expecting Parents O

By Paul French
ITALY DAILY STAFF

Advances in modern medicine can come from the most unlikely places, sometimes even from patients.

When a young Milan doctor was approached by a couple with an unusual - almost improbable - request, Dr. Augusto Semprini's career took an unexpected turn from which he has not looked back.

The male patient was infected with HIV and he and his sero-negative wife wanted to start a family. Sexual intercourse was too great a risk because HIV, the virus which causes AIDS, is sexually transmitted. Common sense may have dictated the couple not start a family at all, especially with the man's life expectancy severely compromised by a killer virus.

But Dr. Semprini, a gynecologist, took up their challenge and began to investigate the assumptions and basic science of AIDS. What he found was a lot of fear and uncertainty about the disease and little knowledge about where the virus that causes it hides in the human body. He developed a method whereby infected sperm is washed of the virus and then used to artificially inseminate women. It had nev-

er been tried before and the couple proceeded.

It was 1989 and the doctor was 36 years old.

"We were very cautious and conscious that what we were doing might cause a backlash and incite hostility, not only from the public but also from the medical community," Dr. Semprini said in an interview in his central Milan clinic.

"In fact, we waited three years before telling the world what we were doing.

When we published our findings in 'Lancet,' a British scientific journal, we had the proof not only from our data but from the

very real evidence of a healthy three-year-old child."

Dr. Semprini's early research was funded by the Region of Lombardy through San Paolo Hospital in Milan. At the time, the stigma surrounding the infection and its causes of transmission - by intravenous drug use and unprotected sex, largely among homosexual men - marginalized Dr. Semprini's line of study.

"It would have been very easy for the

authorities to turn me down," he said.

A young-looking 47 today, dressed in a denim shirt and khakis, the doctor recounts the experience of that first insemination with a modesty that belies the groundbreaking experiment he was conducting with his human guinea pigs.

"No doctor has the right to decide whether a couple can have a child or not, that's up to the couple," he said. "We decided we would take anyone regardless of their clinical condition

but we were obliged to tell the man he may not live long enough to know his offspring."

The procedure Dr. Semprini

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developed borrowed from other infertility procedures used to assist men who have low sperm counts where the healthier, more promising specimens are separated from the weaker ones.

HIV is found in seminal fluid and on the outside of the spermatozoa. A filtering system followed by a wash and centrifugal spin cycle effectively clears the sample of infection. Still, there are no guarantees, and patients must sign a release waiving responsibility should a woman become infected.

The news about the procedure spread by word of mouth and Dr. Semprini found he and his colleagues were devoting more of their time to treating discordant couples (that is, where only one partner is infected) and less time on other infertility issues.

The majority of patients came from Italy but soon others from Europe and the rest of the world showed up at his door. His was the only clinic willing to take the risk.

To date, the procedure has been performed 2,000 times with not a single reported transfer of the virus.

And the demand remains high. This week, Dr. Semprini opened a new clinic at Milan's Sacco Hospital and clinics using his method have opened

RATE OF SUCCESS AS OF JUNE 2000

| | |
|---|-------|
| Number of insemination attempts | 1954 |
| Number of women inseminated | 623 |
| Pregnancies after insemination | 272 * |
| Pregnancy rate | 14 % |
| Of the pregnancies, those occurring after a single insemination attempt | 35 % |
| Clinical miscarriages | 41 |
| Ongoing pregnancies | 26 |
| Livebirths | 242 |
| Maternal infections after insemination | 0 |
| Congenital infections | 0 |

* Multiple births count for single pregnancy.

SE-UP

OS Patients

ut of Unexpected Couples

in Barcelona and London and another will soon open in Switzerland. The foreign clinics have performed 1,000 inseminations, all without transmitting the virus.

"This is not a licensing agreement or anything like that," Dr. Semprini said. "That other clinics are using the procedure is not meant to provide me with an income, not that I'm particularly humanitarian, but I think medical scientists should do something useful and not just play around with test tubes for their own pleasure."

A researcher recently hired by Dr. Semprini will work to develop an international network so that information about the procedure can be used in more places, but she says there is still resistance to the idea.

"Part of the moral hypocrisy about AIDS is the opinion that to some it doesn't seem logical to condone a drug user who has AIDS and a limited life expectancy to have a child," the researcher, Lital Hollander, said. "Yet someone who has cancer, for example, and seeks help to freeze sperm to be used after he's dead, can find support from public health officials who don't seem to have a problem with that."

While the treatment is proving successful in not transferring the virus, the rate at which women are getting pregnant closely parallels the statistics for couples who proceed the normal way - about one in six inseminations. This means the clinic sees a lot of repeat customers. Some eventually give up for financial reasons or from the stress of travel and uncertainty. It costs \$1,000 for the examinations, sperm wash and insemination, which for Italians and other EU citizens is covered by state health plans.

Dr. Semprini says the experience of the past decade cannot prove the procedure is completely safe but it has awakened the medical reproductive community to think about other issues, such as sperm banks where HIV-infected donor sperm has been transferred to women. He says the treatment is also effective in removing Hepatitis C, a virus common among intravenous drug users.

From getting to know his patients



Fertility specialist Augusto Semprini, 47, started a clinic for AIDS couples about a decade ago. Now there are similar clinics around Europe, with another opening this week.

over the years. Dr. Semprini believes that having children is good for immune-compromised men. "I'm convinced that the responsibility of having a child has impacted very favorably on the quality of life of infected men. They are motivated to put their past behind them," he said, adding that he knows of only two patients who subsequently died of complications due to AIDS. He beams like a new parent when asked how many children have been born over the years: "Two hundred and forty-two and counting."

As new medical treatments are developed that prolong the life of AIDS patients, Dr. Semprini says couples can proceed with more confidence about their prospects for the future. But he does not yet see a day when the procedure will be unnecessary. "HIV still lurks in reservoirs in the body even when blood tests reveal no trace of the virus, which is what we're seeing in more patients who are taking new and expensive drug regimens."

The doctor looks at his watch and suddenly looks rushed. "If you will excuse me, I have a baby to deliver."

**Tomorrow in
ITALY DAILY
WEEKEND:
A Taste of
North Africa**

A cous cous festival in Sicily adds a culinary angle to the island's vibrant Mediterranean culture.

EMERGENCY NUMBERS

| | |
|---------------------|-----|
| Police | 113 |
| Carabinieri | 112 |
| Fire Department | 115 |
| Roadside Assistance | 116 |
| Medical Emergency | 118 |
| Operator | 170 |
| Directory listings | -- |