

## Fil-Am surgeon part of medical history

Written by Special to the Filipino Reporter  
Friday, 14 December 2018 10:03

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**Dr. Ian Soriano (center) with Dr. Suhail Kanchwala and another surgeon during the unprecedented robotic bilateral great reconstruction surgery. (Courtesy of Perelman School of Medicine, University of Pennsylvania)**

PHILADELPHIA — A team of surgeons from the Perelman School of Medicine at the University of Pennsylvania, including a young Filipino-American doctor, became the first in the world to use a surgical robot to assist with a bilateral free flap breast reconstruction — a procedure in which tissue is taken from the lower abdomen — similar to a “tummy tuck” — and used to rebuild the breast.

The robot allows surgeons to make a much smaller incision into the abdominal wall muscles, allowing patients to recover and be discharged more quickly and without the use of addictive narcotic painkillers.

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Dr. Ian Soriano, a graduate of the University of the Philippines College of Medicine and a clinical assistant professor of surgery at the University of Pennsylvania, partnered with Dr. Suhail Kanchwala, an associate professor of plastic surgery, who led the team that performed the procedure, which took place at Pennsylvania Hospital earlier this month.

Soriano, who specializes in minimally invasive procedures, teamed up with Kanchwala to develop the technique.

“We’ve been using a minimally-invasive, laparoscopic technique to reduce pain and get patients home more quickly without using narcotics for more than a year. The addition of the surgical robot allows for greater precision and is the next step in our evolution,” Kanchwala said.

Women who have chosen a mastectomy, either to remove cancerous breast tissue or as preventative measure due to genetic risk, have several options for reconstruction.

Kanchwala said traditionally, using a patients’ own tissue results in a more natural appearance and is a more permanent solution when compared to implant-based reconstructions, which often require additional surgeries.

“This is great news to breast cancer patients all over the world, particularly those in the Philippines,” said Soriano, who graduated from a combined undergraduate-medical degree program at the UP College of Medicine in Manila, where he was an active member of the Alpha Sigma Fraternity.

Soriano noted that according to the website of the Philippine Breast Cancer Network, breast cancer affects one in 13 Filipinos and is the leading killer of women between 35 and 54 years old.

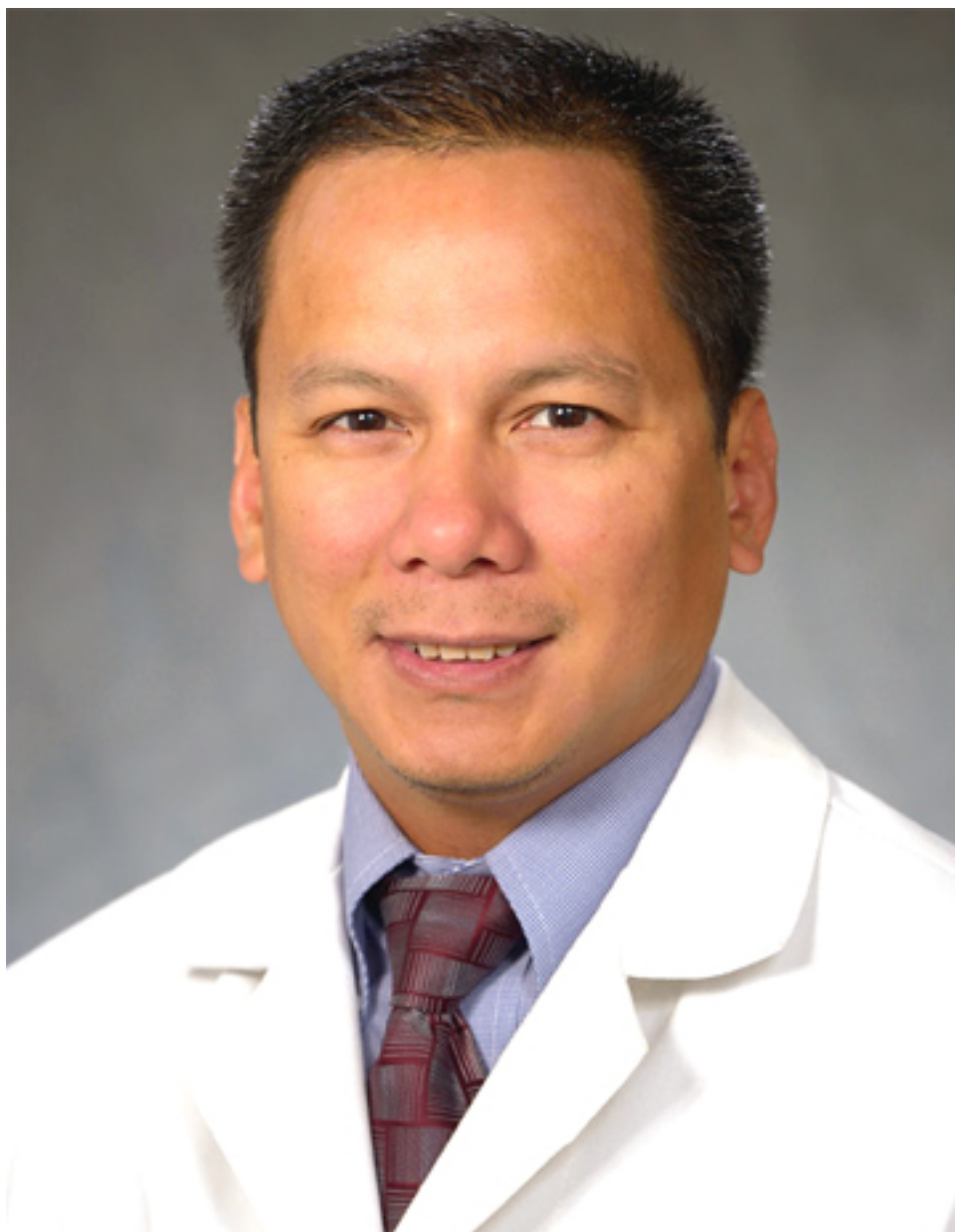
The Philippines has the highest incidence of breast cancer in Asia with the highest increase of almost 500 percent over a 30-year period from 1980 to 2010.

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Can the breakthrough surgery that they did in Philadelphia be replicated in the Philippines?



**DR. IAN SORIANO**

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“Given that we are able to do this approach both robotically and laparoscopically (both done with small incisions), I believe that the technique is reproducible in the Philippines,” Soriano said.

“Provided, however, that a plastic surgeon who specializes in microvascular surgery and an advance laparoscopic surgeon team up and work together to learn the technique and choose well their patients who will benefit from this procedure.”

He said that while there are a significant number of advanced laparoscopic surgeons who perform laparoscopic hernia repair in the country, there are less than 10 surgeons in the Philippines with significant microvascular surgery experience.

“So this would be the main limiting factor to adapting this technique in the Philippines,” he said.

Soriano was an honorary fellow of the Philippine Association of Laparoscopic and Endoscopic Surgeons in 2012 and was recipient of the Most Outstanding Chief Surgical Resident Award at the Albert Einstein Medical Center in Philadelphia, Pennsylvania.

He is board-certified by the American Board of Surgery and the Educational Commission for Foreign Medical Graduates.

Penn surgeons perform more than 700 tissue-based reconstructions yearly, making it the largest center for this form of reconstruction in the world.

Soriano said that with current screening guidelines, familial breast cancer and non-familial

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breast cancer are now being diagnosed at earlier stages, allowing for earlier treatment with surgery and chemotherapy.

Familial breast cancer requires removal of all breast tissue to prevent recurrence, while patients with non-familial breast cancer have the option of having only part or all of the breast tissue removed followed by chemotherapy.

After mastectomy, Soriano said, more and more patients are choosing to undergo breast reconstruction to decrease the depression and loss of self-esteem experienced by breast cancer patients.

This is done either thru breast implants or by using the patient's own skin, fat and sometimes muscle.

"Breast implants are made of silicone and filled with either saline or silicone. However, as implants are not native tissue, therefore implants can puncture and leak their contents, or can cause painful or disfiguring scarring over time requiring replacement or revision. When using your own skin and tissue (also known as flaps), these problems are avoided but the surgery is more delicate and complicated, and thus require additional training. The Penn plastic surgeons do the most flaps in the U.S.," he added.

Recalling how they came up with the technique, Soriano said, "Back in September 2017, one of the Penn plastic surgeons who does the free flaps came and watched me do robotic hernia surgery and noted that the vessels that I was working around are the same vessels that he uses to do breast flap reconstruction surgery. We then went together to the Intuitive Surgical Headquarters in Sunnyvale, California and tested our plan on cadavers. We learned that the procedure to use the robot to get the vessels he needs for breast reconstruction was feasible but logistically better done robotically if the patient was undergoing another robotic procedure simultaneously."

He continued: "We then decided to modify the endoscopic approach that he was already doing to using laparoscopic surgery. We partnered to do this technique in 50 patients. Last month, we had a patient who needed another robotic procedure who had just completed her treatment for breast cancer and was ready for her breast reconstruction. After I completed that first robotic

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procedure, I then used the surgical robot to harvest the vessels of the skin and tissues of the abdominal wall which he then removed and connected to the skin, tissues and blood vessels where the breast used to be, giving the patient normal appearing breasts again.”

With both laparoscopic and robotic techniques, he said, patients wake up without any pain, do not ask for pain medications after surgery and are able to go home in less than two days from their surgery versus five days in the hospital with the traditional open approach.

Much like with the laparoscopic technique, the surgical robot allows the surgeon to avoid larger cuts to the muscle while also collecting blood vessels more easily.

The smaller incision also limits the risk of hernia and other complications.

Aside from being a clinical assistant professor of surgery at the Perelman School of Medicine of the University of Pennsylvania and a visiting professor of surgery at the UP College of Medicine, Soriano is a surgeon specializing in minimally invasive gastrointestinal and bariatric surgery in the Division of Gastrointestinal Surgery, Department of Surgery of Penn Medicine in Philadelphia.

After an internship at the Philippine General Hospital in 1996-1997, Soriano started his residency in general surgery at the Mount Sinai Hospital in New York from 2000 to 2001, and went on to become a resident and later chief resident in general surgery at the Albert Einstein Medical Center in Philadelphia from 2001 to 2006, and later as clinical fellow on minimally invasive surgery at the Cleveland Clinic Foundation in Weston, Florida.

After stints as an active member of the medical staff at the Provena-St. Mary's Hospital and at the Riverside Medical Center, both at Kankakee, Illinois, Soriano went on to become Associate Director, Bariatric Surgery at the Temple University Hospital in Philadelphia from 2009 to 2011, and briefly as Interim Medical Director, Bariatric Surgery at the Jeanes Hospital, also in Philadelphia in 2011.

Soriano has authored several articles on surgery that have been published in medical books

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and journals.

He is a member of the UP Medical Alumni Society in America, the UP Alpha Sigma Alumni Association of North America, and the International Federation of Surgery for Obesity.

He is a fellow of the American College of Surgeons, American Society for Metabolic and Bariatric Surgery, Society of American Gastrointestinal and Endoscopic Surgeons, Americas Hernia Society and the Philadelphia Academy of Surgery.