

**Fortis**

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Monthly Dossier – June 2017

Publication	Headline	Date	Pg. No
Mid-Day	City doc first to perform new cancer op in India	18.06.2017	01 & 06

# City doc first to perform new cancer op in India

Pressurised Intraperitoneal Aerosol Chemotherapy (PIPAC) is a combination of surgery and chemotherapy for patients suffering from gynaecological and abdominal cancers. It also comes with the promise of minimal side-effects

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FOR 61-year-old Sumita Bose (name changed), who had lost all hope after her ovarian cancer returned for the third time, the revolutionary Pressurised Intraperitoneal Aerosol Chemotherapy (PIPAC) has come as a godsend. Last month, Bose became the first to undergo the procedure in the country at St. Jeebhaj Hospital. Her body had stopped responding to traditional treatment after undergoing 24 cycles of strenuous chemotherapy.

"To ovarian cancer, a liquid (aerosol) forms in the abdomen. Bose was carrying 10 litres of ascites, which was causing her acute discomfort. She could neither lie down nor sit comfortably or even eat properly. With PIPAC, the liquid has reduced to two litres and and the new formation of ascites is under control," said Dr Ninad Keshare, a specialist in peritoneal, gastrointestinal and gynaecological cancers, who conducted the procedure on Bose. "She has been kept under observation and we will decide on a future course of action," he said.

**How PIPAC works**

PIPAC is an alternative option of treatment to patients suffering from peritoneal cancers (affecting the lining around organs such as the abdominal cavity, ovaries, colon, stomach, gall bladder and pancreas). The PIPAC process is a combination of surgery and chemotherapy. When a patient is admitted, biopsies are done. Following a thorough laparoscopic procedure, a keyhole incision is made using a special device — CapnoPen. Standard liquid chemotherapy that has been converted into gaseous/aerosol form, is sprayed directly on the cancerous area. After the procedure, the residual fumes are absorbed through a special filter and the incision is closed. In fact, after the procedure, the patient can be discharged on the same day or the next. So far, in India, eight oncologists have been trained in the process across six institutions in Delhi, Mumbai and Bangalore.

**Almost no side-effects**

What makes this procedure attractive is that only 10 per cent of the standard dose is administered orally or intravenously and the side-effects that are commonly seen in other procedures such as hair loss, kidney problems, liver problems, vomiting etc, are either minimal or not seen at all. Any patient with peritoneal cancer, who can withstand a two-hour surgery under anaesthesia, is compatible with this therapy. This process eliminates the cumulative toxicity — the adverse effects caused owing to long-term exposure to a toxicant or other stressor. Therefore, all patients can tolerate this procedure very well," said Dr Keshare.

What's more, in cases where patients' bodies stop responding to standard chemotherapy in peritoneal cancers, this therapy brings hope. St. Jeebhaj Hospital (Mahim) has earned the title of using the technology for the first time in India and Tata Memorial Hospital (TMH) will soon start using it in its treatment and research.

**Tata Memorial to offer PIPAC**

Dr CS Parnesh, president of National Cancer Grid, Tata Memorial Hospital confirmed that TMG is planning to explore the use of this new technique. Dr Avinash P Saklani, associate professor of robotic surgery, Tata Memorial, said they had scheduled a meeting on August 15 with Prof MA Raymond (who invented the CapnoPen used in PIPAC) and other representatives from Capnomed, the only company in the world to manufacture the CapnoPen, in order to start offering the procedure at the hospital.

"It is an option for a select group of patients. It is scientifically proven and a lot of study continues on it. In peritoneal cancer, if surgeries and other options have failed, this new technology can help control the symptoms and extend lifespan. It is not a cure, however," said Dr Saklani.

The CapnoPen distributes the medicine in aerosol form by using properties of CO2 under compression allowing deeper penetration in a minimally invasive manner.

Dr Ninad Keshare, who performed the first PIPAC procedure in India

**Capnomed says**

In reply to an email, Stephane Robert Laurent, Country Head, India, of Capnomed, confirmed that Dr Keshare was the first doctor in India to perform the surgery. He also said, "We are the sole manufacturers of the CapnoPen device which supports the PIPAC technique." When asked if they provide training to doctors in the method, he replied, "To be precise, it is not the manufacturer (Capnomed) who provides training per se. It is the inventor of PIPAC, Prof MA Raymond, and his team or any active PIPAC centre initially trained by him who do. Dr Ninad completed the PIPAC training at the University Hospital of Tübingen, Germany, under Prof Raymond's authority."

PHOTO COURTESY/WWW.CAPNOMED.DE

With only 10 per cent of the standard dosage administered, side effects such as hair loss and kidney problems are minimal. PIC: FOR REPRESENTATION ONLY/GETTY IMAGES

Publication	Headline	Date	Pg. No
DNA	Unique surgery brings hope to cancer patients	05.06.2017	11

# Unique surgery brings hope to cancer patients


Mumbai hospital performs India's first PIPAC surgery that delivers chemo drugs to target area

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**Mumbai:** Sushila Mhatre (name changed), 62, has been undergoing treatment for ovarian cancer since 2013. She had a relapse twice and after 24 cycles of chemotherapy, her body stopped responding to treatment. Doctors then suggested Pressurised Intra-Peritoneal Aerosolised Chemotherapy (PIPAC) to her.

"We use keyhole surgery (laparoscopic) to deliver the chemo drugs directly to the affected area. Carbon dioxide is mixed to aid the dispersal. The procedure uses 1/10th the chemo drugs and allows targeted treatment," said Dr Ninad Katdare, Specialist in Peritoneal, Gastrointestinal, and Gynaecological Cancers, SL Raheja Hospital, Mahim, Mumbai. "This will help patients with ovarian, colon, stomach, pancreas, and gall bladder cancer, which form 30 to 40 per cent of all cancer cases," Katdare said.

Since the process uses just 1/10th of drugs that would be used in a normal chemo cycle, a patient's body can



<b>COST</b>	<b>PROCEDURE</b>
₹2.5L per cycle	A combination of surgery and chemotherapy, the patient can go home the same day or next morning
₹1.7L Price of the device, which is currently imported from Germany and can be used only once	<b>HOW</b>
₹1.2L The price it is likely to drop to once Indian manufacturers enter the market	Using a special unique device, standard, liquid chemotherapy drugs are converted into a gas/ aerosol form and sprayed directly on the intra-abdominal tumour

Picture for representation

withstand more cycles. It can also be used to treat cancers that affect the lining of the abdomen.

For Mhatre's family, this was the last hope. "My mother has become weak with years of treatment. We've spent almost Rs 5 lakh on her treatment and hope that PIPAC works,"

said Mhatre's 35-year-old son.

Mhatre had her first round of PIPAC surgery around two weeks ago and doctors say that the fluid accumulation in her abdomen has reduced by two litres. "We will need at least three cycles to see any improvement," Dr Katdare said.

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