San Jose Mercury News

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AUGUST 3, 2003 | SUNDAY

THE NEWSPAPER OF SILICON VALLEY

Medical firm's dangerous secret

DEVICE'S TROUBLES WERE WELL-KNOWN AT MENLO PARK COMPANY

By Paul Jacobs
Mercury News

When a Guidant Corp. subsidiary pleaded guilty in June to 10 federal felonies, it acknowledged failing to report thousands of malfunctions of a medical device used to repair bulges in the body's main artery. Twelve of the unreported cases ended in deaths.

But the problems with the $10,000 device, called the Ancure Endograft System, were no secret inside the Menlo Park subsidiary, EndoVascular Technologies, that made it.

Every time a doctor threaded the tubelike device through an incision in the groin and implanted it in a patient's largest artery, a sales representative was there to observe. Every time, a report was phoned in to a voice mail to which dozens of coworkers and managers could listen.

"Just severely tight," one sales rep recorded in February 2000, describing a doctor's efforts to push the device through the arteries of a Minnesota man in his 60s, after the doctor's first try had torn through another artery. "Tight, tight, tight."

"We did lubricate the outside ... and that thing was slipperier than snot when it was going in," he went on. Still, it stuck again, and the surgeon had to break apart the device's handle to budge it.

The sales rep didn't learn until the next day that the blockage had left the man's legs paralyzed. Eventually they were amputated.

How widely Ancure's malfunctions were known within EndoVascular is one of the most striking findings of a Mercury News examination of the events leading up to the Guidant subsidiary's guilty plea, more than three years after the device was introduced in September 1999. At least 75 patients died and 991 were injured after receiving Ancure implants, according to Food and Drug Administration records. Lawsuits charge that at least some were the result of the implants.

Public records, documents and interviews with ex-employees and oth-

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MERCURY NEWS SPECIAL REPORT

WHAT THE INVESTIGATION FOUND

- At least 75 patients died and 991 were injured after receiving Ancure implants, FDA records show. Lawsuits charge that at least some were the result of the implants.
- EndoVascular had a dual system of tracking malfunctions: one for internal use, another for reporting to the FDA.
- Voice mails by sales representatives describing difficulties were widely shared, but management failed to respond until seven anonymous employees wrote to the FDA and Guidant's chief compliance officer.

MALFUNCTIONS | Device's failure well known at firm

ers familiar with the federal investigation show there were numerous problems with implanting the Ancure device and reveal a pattern of disregard for federal requirements intended to protect patients from faulty medical devices.

Slow to file

Problems reported much later

■ EndoVascular maintained a dual system of tracking malfunctions, one for internal use and a second, showing many fewer problems, for complaints reported to the FDA.

■ Manufacturing changes intended to fix some of the problems were not properly reported to the FDA for review and approval, as required, until after the device was temporarily pulled from the market in the middle of a government investigation.

■ The dual reporting system ended only after indignant EndoVascular workers sent an anonymous letter to Guidant managers and the FDA.

■ After receiving the anonymous letter, Guidant launched a series of audits at its subsidiary and found thousands of malfunctions that had not been filed with FDA as required. Even then, Guidant didn't report the results until it learned that the government had opened a criminal investigation.

Guidant executives have acknowledged in a court settlement that its subsidiary intentionally withheld information. But they say the devices — placed in 18,000 people worldwide — are safe and performing as expected. The problems, they say, involved the parts used to implant the device, not the device itself.

"If you're a patient with an Ancure implant, I want to assure you, and reassure you, that your implant is safe," said Guidant's chief executive, Ronald W. Dollens, in a Webcast days after the June 12 plea agreement.

Dollens insisted that the problem was confined to its 300-employee subsidiary, EndoVascular. He said Guidant, a giant of the medical device industry with about 10,000 employees, acted aggressively once the issues came to light, making management changes in Menlo Park and working closely with the FDA. No current Guidant employees are targets of a criminal investigation into individual misconduct that is continuing.

Dollens also announced that the company had stopped making the Ancure device, and sales would end in October.

EndoVascular Technologies was launched in 1989 to develop a device for treating life-threatening bulges in the lower end of the aorta, the main vessel that carries blood from the heart to the rest of the body. Left untreated, aneurysms can burst like an overblown balloon, killing quickly.

For decades, the standard treatment has been radical surgery — cutting the belly from breast bone to pelvis, pulling out and moving aside the intestines, then reaching into the body cavity to sew in a polyester patch to reinforce the bulging portion of the aorta.

If all goes well — and often it does not — patients spend a week in the hospital and require six months to recover. As many as 5 percent die within a year.

EndoVascular's device is intended to avoid the trauma of open surgery. The tubelike patch is implanted inside the aorta, threaded through an artery reached from an opening made in the groin. Patients leave the hospital after a few days and are soon back on their feet.

While major complications were greatly reduced, overall mortality was similar to standard surgery in the days following the procedure.

The Ancure Endograft System is quite complicated. The implant is folded up inside a plastic jacket at the end of a long cable. At the other end of the cable, the surgeon manipulates several wires in the cable to retract the jacket and then unfold and attach the implant to the aorta's walls.

Problems arise

How to remove a stuck device

In interviews, former employees recalled how quickly EndoVascular acted in its early years, before it became part of Guidant, to resolve problems that came up in developing the device.

In January 1995, part way through clinical trials of an early version, the company discovered that tiny hooks on the graft that held it to the aorta's walls were breaking months after the implant.

"They immediately went to the FDA," one ex-employee said. "They halted all scheduled procedures." All the patients were called back and followed closely. Redesigning the device and retesting it cost the young company months of time.

> "If you're a patient with an Ancure implant, I want to assure you, and reassure you, that your implant is safe."
>
> — RONALD W. DOLLENS, GUIDANT'S CEO

In 1996, EndoVascular went public, but it was burning through its cash quickly. In late 1997, Guidant, with headquarters in Indianapolis, acquired it

for about $150 million in stock.

Almost immediately, Guidant began installing its own people in key positions.

F. Thomas (Jay) Watkins III, head of Guidant's cardiac and vascular surgery division, became EndoVascular's top executive. As the device neared the market, Richard Rush, another Guidant executive, was put in charge of quality and regulatory affairs. Rush declined to be interviewed; Watkins did not return several calls.

The company won FDA approval for the Ancure system in September 1999. That same day, its chief rival, Medtronic, won approval for its own aortic implant, setting off a battle for customers.

But almost as soon as Ancure hit the market, the company began to hear of problems not seen in the clinical trials.

Doctors often had problems removing the plastic jacket that covered the implant. In one case, records show, a doctor had to discard three devices before finding one that worked. The company failed to report that case for almost a year.

Even worse, the jacket, packed with the tubelike patch, and all the accompanying wires, miniature balloons and hooks used to deploy and attach the device, could get stuck in a patient's arteries. Doctors would sometimes have to open up the patient's belly to remove the device.

Soon the sales reps who observed implantations were leaving voice mails reporting ingenious efforts devised on the spot in operating rooms to remove a stuck device without resorting to major surgery.

One common problem was that one of the wires would get caught, deep inside a patient's body, in the hooks used to attach the device. Surgeons worked with sales reps and came up with a technique to knock loose a stuck wire with a separate wire that had a bent end. They called it the "hockey stick."

As a last resort, when one device system was stuck, an enterprising surgeon broke the handle used to insert the device into the body and pulled the many parts out of the patient piece by piece.

The procedure was quickly named for the sales rep and surgeon who devised it, according to people familiar with the federal investigation. Soon sales reps were recommending that surgeons use the "handle-breaking technique" when other methods failed to dislodge stuck equipment.

But as word spread through the company, several employees questioned its safety.

In January 2000, those concerns turned to outright alarm in a case that would later be cited in the federal government's prosecution of EndoVascular. In that case, the surgeon lost a long wire inside the patient, where it drifted up an artery toward the heart, records show. The surgeon performed standard surgery, but the patient later died of complications.

According to ex-employees, several workers raised concerns about troublesome cases at monthly quality meetings. Some suggested, for example, that the handle-breaking technique should be carefully studied and reported to the FDA, court records show.

Some workers felt management didn't respond.

Early in 2000, after a meeting of a dozen employees, one engineer e-mailed a memo to a superior proposing the technique be thoroughly tested and the problem reported to the FDA for review and approval. Some testing was done, but the method was not reported, according to court records and accounts by ex-employees.

In July 2000, an inspector from the FDA's San Jose office, Eric Anderson, arrived in Menlo Park to inspect EndoVascular and review its records and procedures.

Anderson, who declined to be interviewed, asked specifically for records of difficulties removing plastic jackets that jammed. He was shown a list of 55 complaints, when the company knew there were more than 200.

Anonymous letter

Workers blow the whistle

After the inspection was completed and only minor infractions were cited, a small group of employees decided to take action.

In October 2000, seven workers sent an anonymous letter to Guidant's chief compliance officer in Santa Clara, Michael Gropp, describing in detail their efforts to alert the company to problems through normal channels. They charged that the company had failed to report numerous problems to the FDA. And they sent a copy to the agency.

EndoVascular soon launched a series of audits that would take months to complete, uncovering thousands of malfunctions not properly reported to the FDA.

Guidant shook up the management at the Menlo Park company, under a new unit called EndoVascular Solutions headed by Beverly Huss.

Though the audits were completed by January, the company did not present the results to the FDA until late March, court records show. That happened only after the company became aware that it was under criminal investigation, said people familiar with the investigation.

Executives at the company say that during that time they were preparing to present their findings to the FDA.

At the same time, in March 2001, EndoVascular announced that it was pulling the Ancure off the market. It became available again in August, after the FDA retroactively approved 10 changes to the Ancure system, including expanded instructions for physicians on how to cope with the common problems.

This June, as part of its criminal guilty plea, the company admitted that it had failed to disclose 2,628 malfunctions to the FDA as required by law, amounting to more than a third of all Ancure patients from September 1999 through March 2001.

Days after the plea was entered, Guidant's Dollens appeared on a Webcast for Wall Street analysts and acknowledged that EndoVascular "had intentionally failed to report" malfunctions that either did or were likely to contribute to a death or serious injury.

He tried to put the best light on Guidant's performance, seeming to blame the legal troubles on the culture of its subsidiary.

In subsequent interviews, several former employees said Dollens had ignored the extent to which Guidant had appointed its own people to key positions at EndoVascular. All three members of EndoVascular's board of directors were Guidant executives, according to corporate records.

"We were one company," said one former Menlo Park employee, who says she continues to have a high regard for Guidant and for Dollens. "We were Guidant and not EVT [EndoVascular Technologies] anymore and they made that very clear to us."

Key events for medical device

Guidant has stopped making the Ancure medical device and will close the Menlo Park offices of its subsidiary, EndoVascular Technologies. Below is a history of some key events preceding these actions.

Dec. 19, 1997	Guidant acquires EndoVascular Technologies.
Sept. 28, 1999	FDA approves Ancure device. Doctors start to use it.
January 2000	Handle-breaking technique doesn't work and patient later dies. Some employees question safety of technique.
July 2000	FDA inspects EndoVascular in Menlo Park. Asks for complaints of malfunctions of device jacket and gets 55, when there were more than 200.
October 2000	Seven anonymous employees send letter to FDA and Guidant executive describing safety concerns.
November 2000	Company starts audit of problems, reviewing internal database that included thousands of malfunctions not reported to the FDA.
Mar. 16, 2001	Device sales suspended after 7,632 were sold and 172 problems reported to the FDA.
Mar. 23, 2001	Guidant tells FDA of additional 2,628 malfunctions (including 12 deaths)
August 2001	Company wins FDA approval to return device to the market with new instructions for doctors to troubleshoot problems
June 9, 2003	Criminal charge filed against EndoVascular under seal
June 12, 2003	EndoVascular pleads guilty and agrees to pay $92.4 million in criminal and civil penalties.
June 16, 2003	Guidant announces it has stopped making the device and will halt sales in October.
July 23, 2003	Guidant says it will close EndoVascular office in Menlo Park by the end of August.

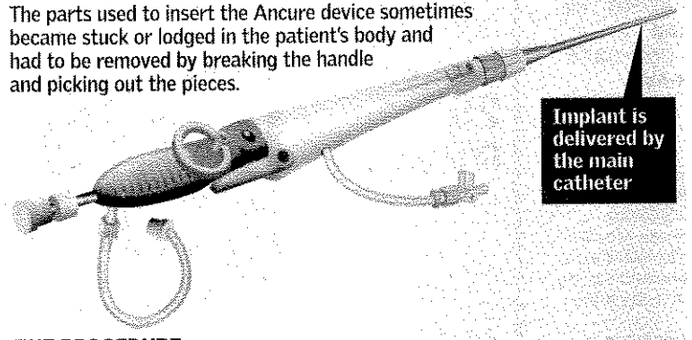
Source: Mercury News research

Guidant's device

The device, created by Guidant's EndoVascular Technologies, was intended to prevent bulges in the walls of arteries, called aneurysms, from rupturing.

PROBLEMS WITH THE ANCURE DELIVERY SYSTEM

The parts used to insert the Ancure device sometimes became stuck or lodged in the patient's body and had to be removed by breaking the handle and picking out the pieces.



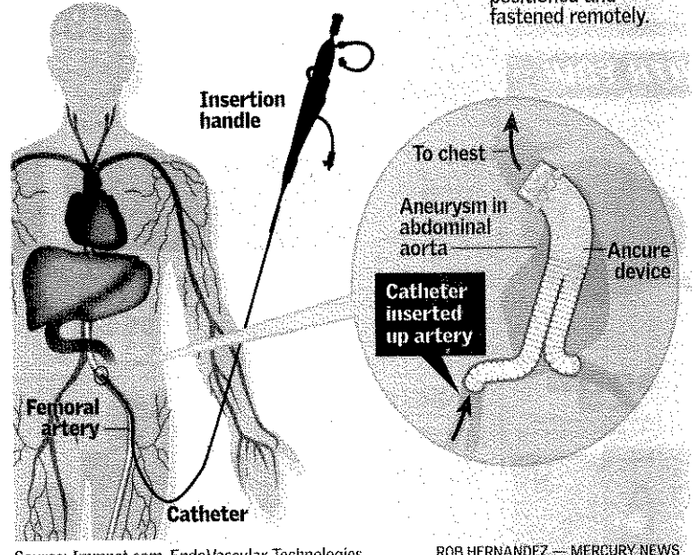
THE PROCEDURE

The device is put in place through a catheter that is positioned by an insertion handle.

1 A 5mm incision is cut in the femoral artery in the groin.

2 Catheter is inserted into the artery.

3 The polyester implant is delivered to the aorta and then positioned and fastened remotely.

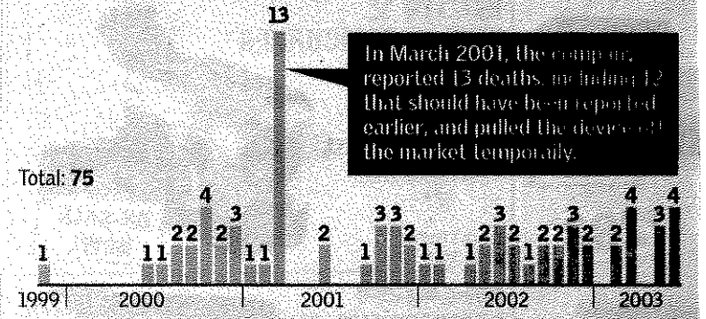


Source: Immnet.com, EndoVascular Technologies

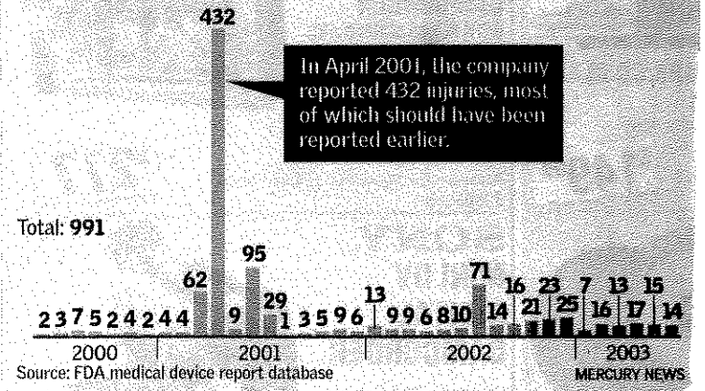
ROB HERNANDEZ — MERCURY NEWS

Deaths reported in Ancure patients

As required by law, Guidant's EndoVascular subsidiary was required to report promptly any deaths and injuries that followed use of its Ancure device for repairing bulges in the body's main artery. Many reports were filed only after the government launched a criminal investigation.



INJURIES REPORTED IN ANCURE PATIENTS



Source: FDA medical device report database

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