

July 20, 2007

Fit Young Pitchers See Elbow Repair as Cure-All

By JERÉ LONGMAN

While examining a 17-year-old pitcher for a knee injury last year in Nashville, Dr. Damon H. Petty was asked a chilling question by the teenager and his father: If reconstructive elbow surgery were performed on his healthy throwing arm, might he gain some speed on his fastball?

Dr. Petty said he dissuaded them, explaining that was a myth, a “dangerous notion to entertain,” and that ligament reconstruction on a healthy arm would not improve his pitching “one iota.”

The procedure is commonly known as Tommy John surgery, named after the former major league pitcher on whom it was first performed in 1974. The surgery has become so reliable, with a success rate of 80 to 85 percent, that it has prolonged the careers of hundreds of major leaguers. About one in seven pitchers in the major leagues this season has had the surgery.

Yet, several leading orthopedists say there are some troubling aspects to the procedure. First, it is becoming more commonplace among teenage pitchers who are injuring their arms through overuse at what surgeons call an alarming rate.

Second, the surgery’s reliability has spawned misconceptions that a healthy arm can be enlivened by the surgery and that the procedure will increase an injured pitcher’s velocity, making him better than ever.

The success of the surgery, and the resulting myths, are prompting young pitchers with marginal injuries, or overly optimistic assessments of their talent, to push for Tommy John surgery when they might not have in the past, doctors said.

Dr. Petty mentioned one patient, a minor leaguer whose elbow injury did not appear to warrant surgery, who later trumped up his symptoms and had the procedure performed by another physician.

Prominent orthopedists said they had no evidence that elbow surgery had been performed on a completely healthy arm, and stressed that no ethical doctor would perform such an unnecessary procedure.

Nevertheless, “it’s something we all worry about,” Dr. James R. Andrews said from his office in Birmingham, Ala. He has performed more than 1,200 Tommy John operations.

Some parents and young pitchers, hoping for college scholarships or multimillion-dollar professional contracts, misguidedly view the surgery as a performance-enhancement technique instead of a last-resort corrective procedure, said Matt Poe, a speed and strength coach in Nashville.

Parents seem more eager for the surgery to be performed on their sons’ sore elbows than perhaps on any other joint, said Dr. Champ L. Baker Jr., the president of the American Orthopaedic Society for Sports Medicine.

“More parents say, ‘Fix him and he can pitch in a year,’ ” Dr. Baker said from his clinic in Columbus, Ga. “If it involves surgery, they’re not opposed to it.

“Young kids see this as a way to get better. It’s a problem because people want an operation that we think they don’t need.”

The surgery was devised by Dr. Frank W. Jobe, who performed the procedure on Tommy John, and is generally recommended only for pitchers with the talent to pitch in college or professionally. It involves reconstruction of the ulnar collateral ligament in the elbow, which can become stretched, frayed or torn through the stress of the throwing motion.

The technique involves harvesting a tendon from the forearm or below the knee, then weaving it in a figure-eight pattern through tunnels that have been drilled in the ulna and humerus bones that are part of the elbow joint.

Although it is highly successful, the surgery may require two years for recovery. Infection, fractures, nerve irritation and numbness are possible. About 20 percent of pitchers do not return.

Doctors said they spent considerable time trying to talk parents and young pitchers out of the surgery, suggesting rest; exercises to strengthen the arm and shoulder muscles; restricting pitch counts; avoiding throwing curveballs until old enough to shave; and switching to another position.

John, who has coached high school pitchers and now manages in the independent Atlantic League, said that a kind of benevolent “child abuse” seemed to exist in baseball as pitchers are pushed too hard by parents and coaches who are uninformed about the risks of overuse.

Even when the risks are explained, and parents are told that many young pitchers eventually lose interest in the sport, Dr. Andrews said, “It doesn’t seem to faze them.”

He added, “Then you have to worry, are you doing the right thing as a surgeon?”

Often, pitchers who are pushed the hardest and sustain the worst overuse injuries are the most talented, doctors said. In the late 1990s, Dr. Andrews said he performed 5 to 10 Tommy John operations a year on high school pitchers. This year, he said, he may perform 75. Last month, he operated on a 14-year-old.

“It’s real distressing,” Dr. Andrews said.

Dr. Petty, who has written and lectured extensively on adolescent arm injuries, pointed to June 27 as a signal of how acute the arm-injury problem had become among young pitchers. That night, six major league starters age 40 or older took the mound.

“I don’t think there’s as deep a talent pool anymore,” Dr. Petty said, because so many kids are coming out of high school with what he called “100,000-mile arms.”

And judging by interviews with parents and teenage pitchers in the baseball-rich Nashville area, many seem to believe that Tommy John surgery will be a cure-all.

Will Nowell of Nashville said that his 10-year-old son, Cullen, had developed a sore arm through overuse and was taking a year off from pitching. He acknowledged that Cullen was too young to have Tommy

John surgery, but if the soreness did not disappear in two or three years, he said, “I wouldn’t be afraid of it.”

J. J. Fish, a 16-year-old pitcher from Lebanon, Tenn., had the surgery in June, in part to sustain his hopes of pitching in college, his father, Jeff, said. Another pitcher gained 3 to 5 miles an hour on his fastball after having the surgery, the father said.

“I’m not saying that’s the reason to do it,” Jeff Fish said in a telephone interview. But he called it a factor in the decision and added, “It’s encouraging to think he might get more velocity.”

Orthopedists say such talk is disturbing. In his 30 years as a surgeon, Dr. Lewis A. Yocum, the medical director for the [Los Angeles Angels](#), said he had performed only one Tommy John procedure on a pitcher as young as 16. He performs 80 to 100 of the operations each year.

“I have a problem doing it on a 12- and 13-year-old to save his career; as far as I’m concerned, he has no career,” Dr. Yocum said from Los Angeles. “The surgery is not for everyone who plays baseball. Just because you’ve got a shiny new hammer, everything isn’t a nail.”

And a result of the surgery, Dr. Yocum and other doctors said, is not a bionic arm.

“There’s nothing in the literature that you throw harder when you come back,” Dr. Brian J. Sennett, the director of sports medicine for the [University of Pennsylvania](#) Health System, said from Philadelphia.

Force and motion are produced by the contraction of muscles. Ligaments do not make the body move. They are ropelike devices that connect bones and stabilize joints, but they do not have any springlike function. Tommy John surgery relieves pain but does not provide an increased ability over a healthy natural ligament to transfer energy from the body to the ball, doctors said.

“There’s no way we can make it better than the good Lord made it,” Dr. Andrews said.

Yet, some pitchers have claimed that they throw harder after recovering from Tommy John surgery. Doctors said several factors might explain this: Pitchers may be comparing postoperative speed with the velocity from their injured arms, young pitchers may begin to throw harder as

they mature, and pitchers often improve their mechanics during rehabilitation while also working to make their bodies stronger. And, of course, repaired arms are pain-free and rested.

“We don’t want to advertise that we can make you a better pitcher by the Tommy John procedure; that’s misleading,” Dr. Andrews said.

Yet that appears to be a growing, if mistaken, notion. Dr. Petty and Poe, the strength coach, polled high school and college players with healthy arms in Nashville last month, asking if they believed that Tommy John surgery would allow them to throw the ball faster. Nine of the 46 respondents answered yes.

One of them was Jeff Hughes, 18, who will pitch at Austin Peay State University beginning this fall. Nick Hiter, who has coached Hughes, said the pitcher’s father, Pete Hughes, once asked him: “ ‘What about that Tommy John surgery? I hear it makes you throw harder. If it works, we’d consider it.’ ”

Hiter said he cautioned him: “It’s not an option. If it ain’t broke, don’t fix it.”

Pete Hughes said, “We might have talked about it, but I wouldn’t just go get it done” unless his son developed a serious elbow problem.

While college and professional teams try to avoid shoulder surgery for their pitchers, because the recovery can be complicated, the opposite seems true for Tommy John surgery.

[Vanderbilt University](#) is standing by its scholarship offer to Navery Moore III, 16, a prospect from Franklin, Tenn., even though Moore had the surgery in March. Last November, the [Yankees](#) acquired Humberto Sánchez from Detroit in a trade, knowing he might need Tommy John surgery, which he did. The Yankees’ recent No. 1 draft pick, Andrew Brackman, may need the surgery. But Yankees General Manager [Brian Cashman](#) seems undaunted.

“It’s a reflection of the success of the surgery; it also speaks to the lack of available pitching,” Cashman said in a telephone interview. “It’s a pitching-thin market. If a talented player is considered far superior compared to other choices, you might not let surgery scare you off.”

However, the surgery does not guarantee success. Matt Beech had Tommy John surgery twice in little more than a year while with the [Philadelphia Phillies](#) in 1998 and 1999. He never returned to the majors. At 35, he is pitching for the Bridgeport Bluefish of the Atlantic League, and being managed by John.

“It’s not a magic bullet,” Beech said of the surgery before a recent game in York, Pa. “I wouldn’t wish it on anybody, especially a healthy kid.”