

Between Us

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**Shriners
Hospitals**
for
Children

carry two bags to school, one for my tennis gear and the other for my brace,” James explained. “I was happy to get the brace off and be able to play tennis without it.”

Every few months, James returned to Shriners to get an update on his physical progress and to have his brace adjusted. It was during his visits to the Springfield Shriners Hospital that James realized how really lucky a young boy he was. Even though he felt socially uncomfortable wearing his brace under clothes several sizes too big, he knew he was better off than many other children he had seen during his hospital visits.

About the time he had graduated from high school and was preparing to attend Harvard University, he informed his mother he would no longer wear his brace. As a sophomore at Harvard, James was named the top college tennis player in the United States. This prestigious title afforded him an opportunity to turn professional. So he left college before his junior year with the full intention of returning to complete his studies at a later date.

Respected by his peers

As a member of the Association of Tennis Professionals tour, James is playing in 20 tournaments this year, including the Australian Open, French Open, Wimbledon and the U.S. Open. At 23, he has already amassed tennis titles, trophies, contracts with Nike and Dunlop, and even a modeling contract through his IMG agent in Cleveland. He has also earned the respect of his teammates and others on the pro tennis circuit, who regard him as an athlete who remains humble in spite of his success.



Reflecting on his days as a Shriners Hospital patient, James said, “Going to Shriners was such a positive experience for me; it made me appreciate at a young age that I had a lot to be thankful for. As far as keeping me humble, I have my parents to thank for that.”

When James Blake, seated, and his brother, Thomas, were very young, they were active participants in the Harlem Junior Tennis Program in New York City. Today, both are professional tennis players.

FDA-APPROVED

Brittle bone patients get ‘new life’ with improved rodding

With nurses Pierre Ouellet, left, and Sharon Laplante, François Fassier, M.D., center, discusses the new telescopic rod that he and another physician, Pierre Duval, M.D., invented for use in osteogenesis imperfecta patients.



Over the years, treating children with osteogenesis imperfecta (OI), or brittle bones, has required the development of various new approaches to care. As it is better understood, the development of new tools to deal with the specifics of the condition is paramount to improving outcomes.

In the case of some OI patients, brittle bones make ambulating difficult, if not impossible. Traditional rodding techniques damaged the cartilage and growth plates and required lengthy immobilization, which, in turn, led to more fractures, as the bone structure was not stimulated by exercise.

Developed to strengthen the femurs and prevent future fractures in children with OI, the Fassier-Duval Telescopic Rod is particular in that its insertion does not require an arthrotomy, the procedure by which a joint is “opened” for surgery. It does not damage the cartilage of the knee joint during the implant procedure. The procedure also minimizes soft tissue (muscle) trauma, thereby reducing blood loss and post-operative pain.

All OI patients can benefit

Unlike the traditional rodding method that requires incisions at both ends of the femur, the Fassier-Duval rod is a telescopic rod with threaded ends, allowing solid fixation in the bone to ensure extension as the bone grows. It is inserted only from the greater trochanter at the top



of the femur, and screwed in at the distal end of the bone. The osteotomies that are required to straighten the bone are performed through very small incisions in the skin, promoting faster recovery and reducing the number of complications and associated

reoperations this type of rodding previously required. It can be used in patients with any type of OI as soon as the child tries to stand.

Already used successfully in Canada, South America and Eastern Europe, the Fassier-Duval rod was approved by the Federal Drug Administration

in February 2003 for use in the United States.

François Fassier, M.D., chief of staff at the Shriners Hospital for Children in Montreal and associate professor of surgery at McGill University, and Pierre Duval, M.D., of the Brome-Missisquoi-Perkins Hospital in Cowansville, Québec, began developing the rod in the 1990s. It was first used in 2000 in tests where children were fitted with a standard telescopic rod in one femur and the new Fassier-Duval rod in the other. The tests were conclusive — the Fassier-Duval rod performed as expected.

Post-operatively, the child is put in a splint for three weeks instead of the usual six weeks required by the more invasive standard rodding systems. Intensive physiotherapy can start after the cast is removed and replaced by a knee-ankle-foot orthosis.

The post-operative rehabilitation time is reduced because of the less invasive technique that requires very small incisions for both the insertion of the telescopic rod and the osteotomies required to straighten the bone. Rehabilitation time is also improved because the articular joints are left intact by the procedure.

Findings reported at meeting

At a February 2003 meeting of the American Academy of Orthopaedic Surgeons in New-Orleans, Dr. Fassier presented results of 21 patients who received 31 rods. At follow-up, 17 of the children experienced no fractures.

At two years, three times fewer reoperations and complications were reported than with other devices. The complication rate was 32 percent and the reoperation rate was 16 percent with some of these related to the learning process. According to Fassier, the figures compare favorably with those reported in the literature for telescopic rods — a 39 percent to 72 percent complication rate and a 10 percent to 40 percent reoperation rate.

What this means for young OI patients is a more positive outlook on life that comes with the confidence the new rod gives them.

Indicated uses for the Fassier-Duval rod include the prevention of further fractures in femurs and humerus in pediatric, small statured or patients with limb length discrepancies. It can be used in procedures such as limb lengthening, in conjunction with external fixators.

“This new resource, now available to orthopaedic surgeons, represents another step in the direction we have mapped out for ourselves: achieving excellence in everything we do by seeking out, finding or developing new and better ways to make children’s lives easier,” Fassier said.