

Open vs. Percutaneous Polectomy in Stenosing Tenosynovitis of the Thumb in Children

I was greatly interested in reading an article published in your Journal titled *Open vs. Percutaneous Polectomy in Stenosing Tenosynovitis of the Thumb in Children* by doctor Ramírez Barragán et al¹ where the authors make a retrospective study of 135 thumbs in 108 patients. Ninety-two cases were treated by means of open surgery and 43 percutaneously, with a recurrence rate of 6.5 and 34.8%, respectively. The authors conclude that the percutaneous technique for trigger thumb is not an advisable procedure for the pediatric population. They describe the procedure by placing an intramuscular needle distal to the nodule on the A1 annular structure, obtaining the tearing of the pulley on extending the interphalangeal joint. During the pre-op period the thumb is immobilized in extension for one week.

I think it necessary to make a few remarks taking into account that the results reported differ substantially from those of other series published recently. In their paper, the authors do not specify if it was one or more surgeons that operated on the patients, which is not a trivial matter given the fact that all the more or less novel minimally invasive techniques are characterized by a lengthy learning curve that could introduce a bias in the study, especially if compared with a well-known surgical technique such as open polectomy, in use for decades and requiring a minimal learning curve, thus with little bearing on the series presented.

Ruiz-Ibán et al² recently published a prospective study on the percutaneous release of the trigger thumb of 27 children operated and followed up by the same surgeon and found only one instance of recurrence following the method described by Eastwood et al³. The authors of the paper meticulously describe the percutaneous technique applied until they succeed in totally ridding the patients of a trigger effect on flexing their thumb. The digit is subsequently immobilized with a soft bandage and parents are taught to mo-

bilize their children's thumb from the first few hours of the post-op period. Patients are followed up at the third and tenth day to check the mobility of their thumb. Both the surgical procedure and the immediate patient follow-up seem to be significantly different from what Ramírez-Barragán et al¹ describe in their paper.

Similar results were obtained by Wang y Lin⁴ in a retrospective study similar to that by Ramírez-Barragán et al, which compares the effectiveness of the open vs. the percutaneous in addressing trigger thumb in 61 children with 72 affected thumbs and finds a recurrence rate of 0 and 7.5% respectively, stating that the latter were cases treated in the outpatient setting with local anesthesia and, logically, little cooperation from the child.

Nonetheless, I think one should clearly state that the percutaneous technique has a slightly higher recurrence rate than the open technique both in adults and in children. But the open procedure is not exempt from other complications like recurrences (6.5% for the authors of the paper), infections (2 cases), digital nerve lesions and disruption of the thumb's mobility. Mc Adams et al⁵ reviewed 30 trigger thumbs subjected to open surgery in 21 children with a follow-up of no less than 15.1 years (range: 2-40 years) and pointed out that 17.6% of them presented with hyperextension of the metacarpophalangeal joint, and up to 23% showed a loss of interphalangeal mobility, which could be attributed to a permanent lesion of the A1 pulley, whose reconstruction tends to be extremely challenging.

To conclude, I believe that, taking into account that there are publications with results that differ markedly from their own, before contraindicating percutaneous polectomy in children the authors should consider the appropriateness of the operative technique they use and of their postoperative management of the children. Although recurrence of trigger thumb is more frequent with a percutaneous procedure, this is an easily resolved complication unlike those that could potentially arise from open polectomy. I therefore think that the percutaneous procedure is a safe and efficient approach which, in expert hands, succeeds in sufficiently releasing the tendon and may prevent the usual problems of thumb mobility these patients tend to suffer.

Finally, it should be said that percutaneous polectomy in children, carried out by means of a small tenotome, was described by Klaus Chiari back in 1953.

P. González-Herranz, M. Ruiz-Ibán
and J.A. López Mondéjar^a

Teresa Herrera Maternity and Child Care Hospital.
La Coruña.

^a The authors declare that they had no conflict of interests in writing this paper.

REFERENCES

1. Ramírez-Barragán A, Martínez-Caballero I, Epeldegui-Torre T. Polectomía abierta frente a percutánea en el tratamiento de la tenosinovitis estenosante del pulgar en el niño. *Rev Ortop Traum.* 2007;51:25-9.
2. Ruiz-Iban MA, González-Herranz P, López Mondejar JA. Percutaneous trigger thumb release in children. *J Pediatr Orthop.* 2006;26:67-70.
3. Eastwood DM, Gupta KJ, Johnson DP. Percutaneous release of the trigger finger: an office procedure. *J Hand Surg (Am).* 1992;17A:114-7.
4. Wang HC, Lin GT. Retrospective study of open versus percutaneous surgery for trigger thumb in children. *Plast Reconstr Surg.* 2005;115:1963-70.
5. McAdams TR, Moneim MS, Omer GE. Long-term follow-up of surgical release of the A1 pulley in childhood trigger thumb. *J Pediatr Orthop.* 2002;22:41-3.
2. Ruiz I, González Herranz P, López Mondejar JA. Percutaneous trigger thumb release in children. *J Pediatr Orthop.* 2006;26:67-70.
3. Tan AHC, Lam KS, Lee EH. The treatment outcome of trigger thumb in children. *J Pediatr Orthop.* 2002;11:256-9.
4. Wang HC, Lin GT. Retrospective study of open versus percutaneous surgery for trigger thumb in children. *Plast Reconstr Surg.* 2005;115:1963-70.

Reply

We are thankful for the comments made by Dr. González Herranz on the treatment of stenosing tenosynovitis in the child's thumb. In the study by Ramírez et al¹ out of a total of 135 trigger thumbs examined, the percutaneous technique was used in 45. The procedure was carried out by 3 surgeons, each with roughly the same experience of the technique (11, 15 and 17 cases respectively) and the same percentage of recurrences. The main difference we find with respect to the study by Ruiz-Ibán et al² concerns the immobilization period following surgery. In our cases, the thumb was kept immobile with a soft bandage for about 7 days to prevent antalgic flexion contracture. It could be that early mobilization might produce a better functional result.

In his setter to the editor, Dr. González Herranz states that trigger thumb recurrences are more frequent when the percutaneous approach is used and that complications are less severe with open polectomy. The low number of complications we obtained with the open technique (2 superficial infections), in line with the findings of other authors^{3,4}, should not be construed as a deterrent. Moreover, the percentage of recurrences obtained with the percutaneous technique should make us extra careful when indicating it in children.

A. Ramírez Barragán

Niño Jesús Children's Hospital. Madrid.

REFERENCES

1. Ramírez Barragán A, Martínez Caballero I, Epeldegui Torre T. Polectomía abierta frente a percutánea en el tratamiento de la tenosinovitis estenosante del pulgar en el niño. *Rev Ortop Traum.* 2007;51:25-9.

Solitary Fibrous Tumor in the Adult Hip

Presented as a scientific poster at the XLII SECOT Meeting held in Seville in October 2005.

Solitary fibrous tumors are a primitive mesenchymal cell neoplasm with multidirectional differentiation characteristics. It was first described in 1921 by Klemperer and Rabin in the pleura. The origin of most of these tumors can be traced back to the thoracic cavity, although they have also been identified in other locations such as the peritoneum, the nasopharynx, the bowels, the upper respiratory tract, the orbit, the thyroid gland and the spine. Few cases have been described in the lower limbs.

CASE REPORT

Sixty-year old male with significant left inguinal pain. It should be said that he had high blood pressure and non-insulin dependent diabetes mellitus that he was being treated for. The patient presented with left groin pain on palpation and hip flexion and extension. He had impaired flexion and internal rotation with a slight limp. No mass was detected in either lower limb. The x-ray study showed bilateral hip arthritis that was more severe in the left hip. Initially, conventional treatment was applied. Pain gradually increased to the extent that the patient came to feel pain even when at rest and was occasionally awakened by it.

One year later, the patient was operated on. A total left hip replacement was performed through a posterior approach. Intraoperatively, a highly vascularized ganglion-like tumor was observed in the anterior region of the surgical field that extended to the anterior aspect so that it could not be fully dissected with the posterolateral incision. A decision was made to take samples and for a pathological analysis, which came up with a diagnosis of neurofibroma. An immunohistochemical study revealed a new mesenchymal formation with an ill defined histological pattern constituted by spindle cells that showed no atypia or mitosis that corresponded to fibroblasts and that were positive for CD-