

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-



Figure 1. Nuclear magnetic resonance of the left hip showing a well contoured mass that does not infiltrate its neighboring structures.

34, vimentin, calponin and, focally, for 7-leucocyte and negative for the S-100 and CD-99 proteins. There were abundant vessels, some with hemangiopericytoid features. An adult solitary fibrous tumor was diagnosed.

Once the results were analyzed, a nuclear magnetic resonance of the left hip was performed (fig. 1) that showed a T1 and T2-hypointense well circumscribed mass of around 8 cm with a large longitudinal axis that was slightly heterogeneous and in close contact with the cranial-most of the vastus lateralis muscle and medially displaced the gracilis. It did not seem to infiltrate any of the adjacent structures.

Since the mass had been intraoperatively seen to be highly vascularized, the tumor was embolized. The arteriogram showed a highly vascularized mass that depended on the first ramus of the deep femoral artery.

The next day, the tumor was fully resected through an anterior approach (fig. 2). The mass did not infiltrate any of the adjacent structures and was highly vascular but did not

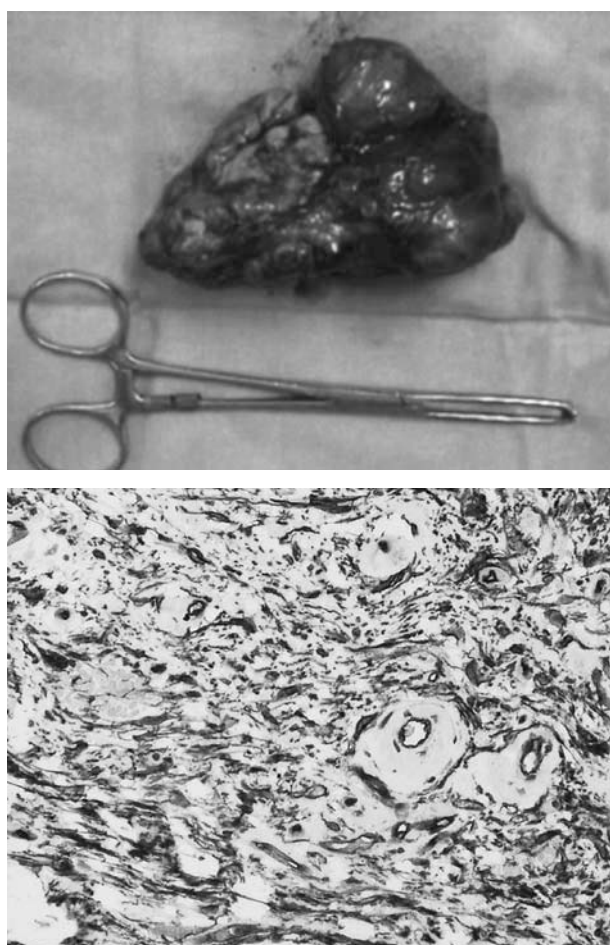


Figure 2. Tumoral specimen following surgical resection. Immunohistochemical diagnostic confirmation; characteristic CD-34 staining.

bleed in excess thanks to the embolization previously performed. The pathological study confirmed the diagnosis.

We consider the finding of the tumor a wholly incidental occurrence because pain completely disappeared following arthroplasty.

Currently, one and a half years into the post-op period, the patient is still asymptomatic and shows no signs of local recurrence or metastasis (thoracoabdominal computerized axial tomography and hip NMRI showed no alterations).

DISCUSSION

Solitary fibrous tumor in the adult is a rare spindle cell neoplasm whose exact incidence remains unknown. Gold et al¹ studied the incidence of this tumor in their hospital over a 18-year period and found that of a total 4,000 soft tissue tumors only 79 corresponded to this kind, and of these only 2 (2%) were located in the limbs. The literature contains no other series of this tumor that contains more cases. At the

beginning it was thought that the tumor originated is the mesothelium of serous membranes. For that reason, in the past it was given names like fibrous mesothelioma, localized mesothelioma and submesothelial fibroma, which contributed to the confusion². Nowadays there is a general belief that this tumor is of mesenchymal rather than mesothelial origin. Neoplastic cells are not mesothelial cells and, although the tumor appears more usually in the pleura and the peritoneum, it can originate at sites wholly unrelated to serous cavities². This tumor rarely affects the musculoskeletal system and only 22 cases have been reported in the English-language literature of it being present in the limbs (8 in the thigh, 4 in the arm, 2 in the forearm, one in the shoulder, 2 in the calf and the remaining six at unspecified locations). It equally affects men and women¹ and possessed a broad histological spectrum, which makes its accurate diagnosis difficult. CD-34 and bcl-2 histochemical tests are an invaluable diagnostic tool³⁻⁵.

NMRI is useful in terms of locating the tumor and establishing its size and its relation with surrounding with the surrounding tissues. Nonetheless, NMRI does not seem to reflect any specific characteristics of the tumor and is not able to distinguish it from other types of soft tissue tumors². The differential diagnosis of adult solitary fibrous tumor in the limb must be carried out with several benign and malignant neoplasms such as fibrous histiocytoma, desmoid tumor, fibrosarcoma, hemangiopericytoma, dermatofibrosarcoma protuberans, neurofibroma and malignant peripheral nerve sheath tumor.

In Gold's study¹, tumors larger than 10 cm had a poorer prognosis as regards metastasis and local recurrence. A malignant component was defined as an area of markedly increased cellularity with over 4 mitotic figures in high (x 10) magnification fields without alternating hypocellular sclerotic areas. Presence of such a component was associated with a shorter local recurrence and metastasis-free period. This study concluded that patients with a tumor of 10 cm or less that did not have a malignant component a good outcome could be expected and could be appropriately treated with surgery only. Larger tumors with a malignant component had a poorer prognosis and, as the ideal adjuvant treatment to surgery was ill known it was essential to follow them up closely.

Previous studies such as that by Hasegawa⁶ indicated that the local recurrence or distant metastasis rate of extra-thoracic tumors ranged between 10 and 13%, but of the 22 cases reported in the literature only one recurred locally in the upper limb³. A wide resection and a careful long-term

follow-up are mandatory in the treatment of this tumor^{3,7}.

At present, it is not known what the ideal adjuvant treatment to surgery may be; chemotherapy and radiation therapy are used.

In the study by Gold et al¹ two patients received adjuvant treatment to surgical resection. Both had suffered a local recurrence. One of them received adjuvant chemotherapy with doxorubicin and radiation therapy before surgery. The other received radiation therapy after resection of the primary tumor and was subsequently treated with brachytherapy, at the same time at which surgical resection of the local recurrence was carried out.

ACKNOWLEDGEMENTS

We would like to thank Telma Meizoso Latova, M.D. from the Pathology Department of our Hospital for her cooperation in this case.

P. Guerra-Vélez, J.M. Cano-Egea and A. Coello-Nogués
Department of Trauma Surgery I. 12 de Octubre University
Hospital. Madrid.

REFERENCES

1. Gold J, Antonescu CR, Hajdu C, Ferrone CR, Hussain M, Lewis JJ, et al. Clinicopathologic correlates of solitary fibrous tumors. *Cancer*. 2002;94:1057-68.
2. Harrington P, Merchant WJ, Walsh ME. Solitary fibrous tumour of the forearm. A rare tumour in an atypical site. *J Hand Surg (Br)*. 1999;24:370-2.
3. Akisue T, Matsumoto K, Kizaki T, Fujita I, Yamamoto T, Yoshiya S, et al. Solitary fibrous tumor in the extremity: case report and review of the literature. *Clin Orthop Relat Res*. 2003;411:236-44.
4. Hanau Ch, Miettinen M. Solitary Fibrous Tumor: Histological and Immunohistochemical spectrum of benign and malignant variants presenting at different sites. *Human Pathology* 1995;26:440-8.
5. Flint A, Weiss Sh. CD-34 and keratin expression distinguishes Solitary Fibrous Tumor (Fibrous Mesothelioma) of pleura from Desmoplastic Mesothelioma. *Human Pathology*. 1995;26:428-30.
6. Hasegawa T, Matsuno Y, Shimono T, Hirohashi S, Hirose T, Sano R. Frequent expression of bcl-2 protein in solitary fibrous tumors. *Jpn J Clin Oncol*. 1998;28:86-91.
7. O'Connell JX, Logan PM, Beauchamp CP. Solitary Fibrous Tumor of the periosteum. *Human Pathology*. 1995;26:460-62.