Leiomyomas, which are benign tumors of smooth-muscle origin, rarely occur in the hand. To our knowledge, there have been no reports of a leiomyoma of the hand mimicking a pearl ganglion in the English literature.\(^1\)\(^2\) We describe such a case of a painful leiomyoma of the hand.

**CASE REPORT**

A 59-year-old woman presented with a painful nodule on her right long finger. Physical examination revealed a deeply seated nodular lesion about 5 mm in diameter, at the distal palmar crease of the right palm. The lesion was tender to palpation, and she had had pain on gripping for the previous 3 months. No other masses were detected in the hand or the upper extremity. With use of local anesthesia without a tourniquet, en bloc excision of the nodule was performed. A transverse incision was made in line with the distal palmar crease. The nodule together with the underlying sheet of tissue was excised. The wound was primarily closed using non-absorbable monofilament sutures. Pathological analysis of the specimen revealed a smooth, discrete, bluish nodule with a firm, rubbery consistency arising from a vessel wall with a stalk connecting the nodule to the vessel wall structure. The nodule was 4 mm in diameter. Histological examination demonstrated a typical microscopic appearance of a leiomyoma with intertwining bundles of smooth-muscle cells, and no mitotic figure was seen (Fig. 1).

**Fig. 1** Photomicrograph showing the storiform architecture of spindle cells (H&E stain, ×150).

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**Key words:** leiomyoma, pearl ganglion.

Leiomyomas, which are benign tumors of smooth-muscle origin, rarely occur in the hand.\(^1\)\(^2\) To our knowledge, there have been no reports of a leiomyoma of the hand mimicking a pearl ganglion in the English literature.\(^3\) We describe such a case of a painful leiomyoma of the hand.

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Immunohistochemical staining for muscle-specific actin with the HHF 35 antibody revealed that the tumor was of a muscular origin (Fig. 2). At the 1-year follow-up examination, there was neither evidence of local recurrence nor pain at the site of the excision. The patient had full range of motion of the wrist and fingers. There was no evidence of other masses elsewhere in the body.

**DISCUSSION**

Leiomyomas are benign tumors of smooth-muscle origin. Uterine leiomyomas are the most common tumors in women.\(^{(4)}\) Leiomyomas of the hand are extremely rare and arise from non-striated muscles in the upper extremity, such as erector pili, sweat glands, and vascular walls.\(^{(5)}\) Most reports of leiomyomas of the hand have included only 1 or 2 patients each.\(^{(1,2,6-11)}\) Uchida et al.\(^{(12)}\) reported on 11 patients with a leiomyoma in the upper extremity. Neviaser and Newman reported 24 leiomyomas of the hand and forearm in their review of 85 vascular leiomyomas,\(^{(13)}\) which we believe to be the largest series to date. However, none of these reports had any similarity to our case. The only report of a leiomyoma mimicking a pearl ganglion was in Polish.\(^{(3)}\)

In general, leiomyomas occur in the third and fourth decades of life.\(^{(10)}\) The average age of patients with a leiomyoma in the hand was reported to be from 39 to 46 years.\(^{(12,13)}\) These lesions are twice as common in women and girls as in men and boys; when they occur in the extremities, they are more common in the leg, ankle, and foot than in the upper extremity.\(^{(5)}\) The most characteristic subjective symptom of a leiomyoma is tenderness that evolves into pain, which is often paroxysmal.\(^{(1)}\) However, Uchida et al. reported that leiomyomas in the hand are usually not painful, but that lesions in the arm and the forearm commonly are. There is difficulty in differentiating a lesion like this case from a true pearl ganglion as both present as a tiny painful nodule. A possible preoperative diagnosis may require an expensive imaging study such as magnetic resonance imaging to differentiate the many possible other tumors of the hand. Operative excision is the treatment of choice in these cases for both pathologic diagnosis and for definite treatment. If an adequate margin is obtained, recurrence of a leiomyoma is rare.\(^{(1)}\) There was no recurrence in this patient 2 years after the operation.

Our findings are exceedingly unusual, not only because the leiomyoma developed in the hand, but also because of its similarity to a ganglion. To our knowledge, there has been no previous report of the occurrence of a leiomyoma mimicking a ganglion in the English literature. This report can serve to remind clinicians to include leiomyoma in the differential diagnoses when encountering a 'ganglion-like lesion'. This report also demonstrates the link between a leiomyoma and its underlying origin.

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手部平滑肌瘤擬似腱鞘囊腫

楊文一 薛 绥 陳志華 李宗科 陳文哲

手部平滑肌瘤非常少見。根據目前英文文獻記載，未有關於手部平滑肌瘤擬似腱鞘囊腫之報告。我們報告一例59歲婦女右手第三指之平滑肌瘤臨床表現擬似腱鞘囊腫。腫瘤連同底

下之三層組織一起切除。病理報告發現腫瘤以一囊狀組織與底下之血管壁構造相連。本報告

提醒大家將平滑肌瘤列入疑似腱鞘囊腫病變之鑑別診斷清單之中。同時本報告展平滑肌瘤

與其本源之連結。(長庚醫誌 2004;27:134-7)

關鍵字：平滑肌瘤，腱鞘囊腫。