

## A rare case from a young surgeon: Dermofibrosarcoma protuberans

Serhat Dogan<sup>1</sup>, Ebubekir Gundes<sup>2</sup>, Vahide Baz<sup>3</sup>

<sup>1</sup>Yesilyurt Hasan Calik State Hospital, Department of General Surgery, Malatya, Turkey

<sup>2</sup>Kartal Kosuyolu High Education and Research Hospital, Department of Gastrointestinal Surgery Istanbul, Turkey

<sup>3</sup>Malatya Education and Research Hospital, Department of Pathology, Malatya, Turkey

### Abstract

We present a rare case of Dermatofibrosarcoma protuberans (DFSP) as a case report. A 65 years old man has been admitted with complaints of swelling in the left arm region for approximately five years. Local excision was performed with preliminary diagnosis of lipoma. The pathology was reported as DFSP. The borders of the surgery were positive. Call back the patient to the hospital and re excision was done. Surgical borders are reported as clean. As a new surgeon, we wanted to present this rare case to medical literature. We understand that how important is to follow pathology of each patients and records.

**Keywords:** Dermatofibrosarcoma Protuberans; Tumor; Local.

### INTRODUCTION

Dermatofibrosarcoma protuberans (DFSP) is a rare kind of local advanced skin tumor. It was first described by Darier and Ferrand in 1924 (1). Pathology is in the beta chain of platelet growth factor.

DFSP, a locally aggressive tumor, may begin with a very small size and progress to the bone and may recur even after large resections (3,4). The diagnosis can be made clinically by physical examination. The experience is important to be denied. It may be seen as a small nodule in reddish brown, or it may be in the form of a large mass of exudative flow with ulceration on it. This progression begins locally and spreads over a large area (3,5). Computerized tomography (CT) and magnetic resonance imaging (MRI) are important in showing involvement. Treatment is extensive surgical resection. DFSP can occasionally distant metastases (6). Radiotherapy and chemotherapy are limited. It's done in the presence of metastasis.

### CASE REPORT

A 65-year-old male patient was admitted to the general surgery polyclinic of Yesilyurt Hasan Çalik State Hospital with a slowly growing mass in the last year, it was the same area of the left arm for about five years.

Received: 31.01.2017

Accepted: 03.03.2017

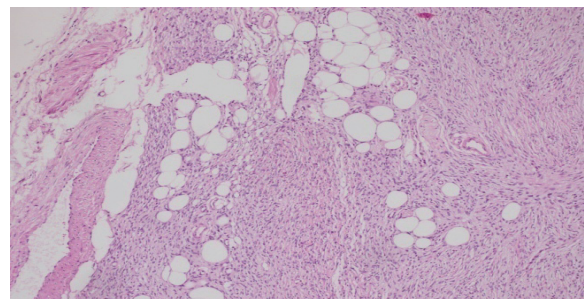
Corresponding Author

Serhat Dogan, Yesilyurt Hasan Calik State Hospital,  
Department of General Surgery, Malatya Turkey  
E-mail: [drserhatdogan@gmail.com](mailto:drserhatdogan@gmail.com)

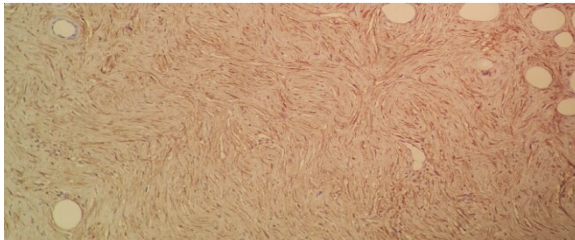
On the physical examination, there was a lenticular-sized lesion approximately 0.5 cm in size at the left arm. Mass was not very mobile. The lipoma was prepared for excision locally with preliminary diagnosis. The lesion was small and no malignancy was suspected so radiologic examination was not necessary because of the absence of any features in the patient's history. Patient consent was obtained. The preparations were completed and the operation was taken.

In operation, the mass was completely removed and sent to the pathology. Postoperative pathology was reported as DFSP. In the report the surgical margin was positive at the bottom, the patient was immediately called and invited back to the hospital. Pathological specimens in Figure 1, Figure 2.

The patient was prepared for surgery. The old incision scar was removed with a width of 5 cm. And also we removed the muscle fascia. Specimens sent to pathology. There was no recurrence or any complication in the case followed for three months. As seen post operative photo of the patient Figure 3.



**Figure 1.** View of pathological preparations x40 magnification



**Figure 2.** CD 34 dyed at x40 magnification



**Figure 3.** Post op photo of the patient

## DISCUSSION

Dermatofibrosarcoma protuberans is a rare local aggressive sarcoma originating from the dermis. In the literature, mortality due to this disease has been reported at around 2% for 5 years and 3% for 10 years (3). It rarely metastasizes. The rate of distant metastases has been reported as 0-60% in the literature (3,6). Local recurrence is more common in 20-50% (7,8). Local recurrence depends on the state of the surgical margin and grade of the tumor (4,7-9). The safe surgical margin was reported as 4-5 cm (9,10).

In our case, surgery was rescheduled because the borders were not clean. Pathology results were reported as clean surgical margins. DFSP is a skin tumor local control and macroscopic examination of the place of the incision is important. Although rare metastasis should be kept in mind.

## CONCLUSION

As a result, aggressive surgical approach is essential for DFSP. Reconstructive surgery may be required in larger tumors. Removal of the tumor with safe surgical margins is sufficient, chemotherapy or radiotherapy should be

needed only in the presence of metastatic disease. Patients are recommended to have 6 monthly examinations for the first two years. Patients for the first two years 6 months period inspections is recommended. The most important thing we will win this event is the experience.

As a young surgeon who has just started his professional career important things are careful follow-up of the result of the pathology, to document the contact information the patients who have been treated and taking care of every case. We want to report to my colleagues with this case.

## REFERENCES

1. Darier JF, Ferrand M. Dermato-fibromes progressifs et récidivante soufiro-sarcomes de la peau. *Annales de dermatologie et de syphilographie* 1924;5:45-62.
2. Hoffmann E. Über das knollentreibende Fibrosarkom der haut (Dermatofibrosarkoma protuberans). *Dermat Ztschr* 1925;43(1-2):1-28.
3. Fiore M, Miceli R, Mussi C, LoVullo S, Mariani L, Lozza L, et al. Dermatofibrosarcoma protuberans treated at a single institution: a surgical disease with a high cure rate. *J Clin Oncol* 2005;23(30):7669-75.
4. Kransdorf MJ, Meis-Kindblom JM. Dermatofibrosarcoma protuberans: radiologic appearance. *AJR Am J Roentgenol* 1994;163(2):391-4.
5. Miyakawa E, Fujimoto H, Miyakawa K, Nemoto K, Kozawa K, Sugano I, et al. Dermatofibrosarcoma protuberans. CT findings with pathologic correlation in 6 cases. *Acta Radiol* 1996;37(3 Pt 1):362-5.
6. Turgut AT, Koşar U, Ergeneci A, Çakmak H. Lokal rekürrens bulunmaksızın akciğer metastazı gösteren dermatofibrosarkom protuberans. *Türk Tanısal ve Girişimsel Radyoloji Dergisi* 2003;9(2):195-8.
7. Ruiz-Tovar J, Fernández-Guarino M, Reguero-Callejas ME, Aguilera Velardo A, Arano Bermejo J, Cabañas Navarro L. Dermatofibrosarcoma protuberans: review of 20-years experience. *Clin Transl Oncol* 2006;8(8):606-10.
8. Patil PK, Patel SG, Krishnamurthy S, Mistry RC, Deshpande RK, Desai PB. Dermatofibrosarcoma protuberans metastatic to the lung. A case report. *Tumori* 1992;78(1):49-51.
9. Murphy SJ. Dermatofibrosarcoma protuberans: early recognition and treatment. *Am Fam Physician* 2000;62(6):1257-8.
10. Kimmel Z, Ratner D, Kim JY, Wayne JD, Rademaker AW, Alam M. Peripheral excision margins for dermatofibrosarcoma protuberans: a meta-analysis of spatial data. *Ann Surg Oncol* 2007;14(7):2113-20.