

## BÖLÜM 24

### Memede Dermatofibrosarkomaprotuberans

Kazım GEMİCİ<sup>1</sup>

Dermatofibrosarkomaprotuberans (DFSP) ilk olarak 1924'de Darier ve Ferrand tarafından tanımlanmış ve daha sonra 1925'te Hoffmann tarafından adlandırılmıştır(1). DFSP, nadir, lokal olarak agresif bir deri tümörüdür. Yavaş, infiltratif büyümesi ve cerrahi rezeksiyon sonrası belirgin lokal rekürrens eğilimi ile karakterizedir(2). Bu tümör bir fibrosarkomdur, daha doğrusu kutanöz bir yumuşak doku sarkomudur. Pek çok açıdan DFSP, iyi huylu bir tümör gibi davranmasına rağmen vakaların %2-5'inde metastaz yapabildiğinden malign potansiyele sahip olduğu düşünülmelidir(3). DFSP insidansı yılda bir milyonda 0,8-5 arasında olup, tüm malignitelerin% 0,1'ni oluşturduğu tahmin edilmektedir(4). Moleküler çalışmalar, kromozomal translokasyonun vakaların %90'ından fazlasında olduğunu ortaya koyar, bunlar 17q22 ve 22q13'ü içerir.Translokasyon, COL1A1 genlerini trombosit kaynaklı büyüme faktörü beta (PDGFβ) ile, genellikle bir halka kromozomunun oluşumuyla birleştirir. Bu gen, yapısal olarak ifade edilen PDGF reseptörüne bağlanan ve DFSP hücrelerinin büyümesini uyarmak için bir otokrin faktör görevi gören bir füzyon proteinini kodlar(5). DFSP, CD34'ün güçlü ve yaygın ekspresyonunu gösterir; ayrıca vimentin, nestin ve apolipoprotein D pozitifliği gösterirken ve sitokeratinler, düz kas aktin (SMA), S100, CD56 Faktör XIIIa, Stromelysin 3, and Cathepsin K negatiftir (13-4). Hastalığın %10-20'sinden lokal travmanın sorumlu olduğu bildirilmektedir(6). Çoğu gövdede (% 42), ardından üst ekstremitelerde (% 23), alt ekstremitelerde (% 18) ve baş ve boyunda (% 16) görülür (7). En sık 30 yaşın üzerindeki yetişkinlerde görülür ve tüm yumuşak doku sarkomlarının% 2-6'sını oluşturur. Erkek:Kadın oranı 1:1'dir. Tedavinin temel dayanağı geniş lokal eksizyondur, ancak Mohs mikrografik cerrahi (MMS) alternatif bir yaklaşım olarak ortaya çıkmaktadır(8).

DFSP genellikle kemoterapi ve radyoterapiye dirençlidir, bu nedenle tam cerrahi rezeksiyon veya geniş rezeksiyon tedavinin altın standardı olarak kabul edilmektedir(9). Son yıllarda (MMS) ile nüks oranlarının% 0,6 ile % 6 arasında olduğu söylenmektedir(10). Yetersiz rezeksiyon olgularında lokal nüks oranı %20

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nişliği sınırlanmaktadır. Bu cerrahi dezavantaj, doğal olarak erken nüklere yol açan güvenli cerrahi sınırı daraltır. Cerrahi tedavi öncesi ve sonrası daha etkili bir yöntem olmadıkça, biz cerrahların gerekirse kaburga rezeksiyonu yapmak için agresif cerrahi tercih etmek zorunda kalacağı bir gerçektir.

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## KAYNAKLAR

1. Darier S, Ferrand M. Dermatofibrosarcomes progressifs at recidivantes on fibrosarcomes de la peau (Dermatofibrosarcoma: A progressive and recurring rigid fibrosarcoma of the skin). *Ann Dermatol Venereol* 1924;5:545-62.
2. Gloster HM Jr. Dermatofibrosarcoma protuberans. *J Am Acad Dermatol* 1996 ; 35 : 355 – 74 .
3. Mendenhall WM, Zlotecki RA, Scarborough MT. Dermatofibrosarcoma protuberans. *Cancer* 2004;101:2503-8.
4. Yanan Li, Chuan Wang, Bo Xiang, et al. Clinical Features, Pathological Findings and Treatment of Recurrent Dermatofibrosarcoma Protuberans. *Journal of Cancer* 2017; 8: 1319-23.
5. Sirvent N, Maire G, Pedetour F. Genetics of dermatofibrosarcoma protuberans family of tumors: From ring chromosomes to tyrosine kinase inhibitor treatment. *Genes Chromosomes Cancer* 2003; 37: 1-19.
6. Reha J, Katz SC. Dermatofibrosarcoma Protuberans. *Surg Clin North Am.* 2016;96: 1031–46.
7. Criscione VD, Weinstock MA. Descriptive epidemiology of dermatofibrosarcoma protuberans in the United States, 1973 to 2002. *J Am Acad Dermatol.* 2007;56: 968–73.
8. Bulliard C, Murali R, Chang LY, et al. Subcutaneous dermatofibrosarcoma protuberans in skin of the breast: May mimic a primary breast lesion. *Pathology* 2007;39:446-48.
9. Llombart B, Serra-Guillen C, Monteagudo C, et al. Dermatofibrosarcoma protuberans: a comprehensive review and update on diagnosis and management. *Semin Diagn Pathol* 2013; 30: 13-28.
10. Foroozan M, Sei JF, Amini M, et al. Efficacy of Mohs micrographic surgery for the treatment of dermatofibrosarcoma protuberans: Systematic review. *Arch Dermatol* 2012; 148: 1055-63.
11. Sin FN, Wong KW. Dermatofibrosarcomaprotuberans of the breast: a case report. *Clin Imaging.* 2011;35:398–400.
12. Bowne WB, Antonescu CR, Leung DH, et al. Dermatofibrosarcoma protuberans: A clinicopathologic analysis of patients treated and followed at a single institution. *Cancer* 2000;88:2711-20.
13. Muhammed A, Elnakib E, Nady M. Dermatofibrosarcoma of The Breast - Case Report and Review of Literature. *Eur J Breast Health* 2018; 1:234-37.
14. Maji S, Paul MJ, Sen S. Dermatofibrosarcoma Protuberans of the Breast-a Rare Entity. *Indian J Surg Oncol* 2018 ;9:351-54.
15. Diwakar DK, Wadhvani N, Paruthi S. Recurrent dermatofibrosarcoma protuberans: challenging a surgeon's dexterity for the 'tricky' margins. *Ecancermedicallscience* 2018;13:858.
16. Kumar D, Vallacha A. Dermatofibrosarcoma Protuberans of Breast. *J Coll Physicians Surg Pak* 2018;28:645-47.
17. Zanghi A, Di Vita M, Cavallaro A, et al. Acellular dermal matrix for breast reconstruction after surgery for giant dermatofibrosarcoma protuberans. *Ann Ital Chir* 2018;12;7.
18. Bishnoi A, De D, Parsad D, et al. Dermatofibrosarcoma protuberans-A rare lesion on breast. *Breast J* 2018;24:664-65.

19. Pohlodek K, Mečiarová I, Grossmann P, et al. Dermatofibrosarcoma protuberans of the breast: A case report. *Oncol Lett* 2017;14:993-98.
20. Shukla P, Gulwani HV. Dermatofibrosarcoma Protruberans of the Breast Skin Simulating Mammary Carcinoma. *Indian J Surg Oncol* 2017;8:198-02.
21. Burud IAS, How NS, CheeWei G, et al. Dermatofibrosarcoma Protuberance of the Breast: a Diagnostic Challenge. *Indian J Surg* 2017;79:169-72.
22. Kinney MH, Knox SM. Operative management of dermatofibrosarcoma protuberans of the breast. *Proc (Bayl Univ Med Cent)* 2016;29:315-17.
23. Bae SH, Lee JY. Imaging Features of Breast Dermatofibrosarcoma Protuberans in Various Modalities Including FDG-PET CT. *Iran J Radiol* 2016;13:e33916.
24. Koh T, Kato S, Hirajima S, et al. A Case of Dermatofibrosarcoma Protuberans Arising in Subcutaneous Tissue of the Breast. *Breast J* 2016;22:578-9.
25. Saikia BK, Das I, Mandal GK. Fibrosarcomatous change in the background of dermatofibrosarcoma protuberans in male breast: Study of a rare case and review of the entity. *J Midlife Health* 2016;7:45-8.
26. Özcan TB, Hacıhasanoğlu E, Nazlı MA, et al. A Rare Breast Tumor: Dermatofibrosarcoma Protuberans. *J Breast Health* 2016;12:44-46.
27. Al-Rahbi S, Al-Lawati T, Al-Kharusi S, et al. Dermatofibrosarcoma Protuberans: A Rare Malignancy of the Breast. *Oman Med J* 2015;30:378-81.
28. Al Tarakji M, Toro A, Di Carlo I, et al. Unusual presentation of dermatofibrosarcoma protuberans in a male patient's breast: a case report and review of the literature. *World J Surg Oncol* 2015;13:158.
29. Territo V, Morello V, Caruso AM, et al. Double localization and multiple recurrences of dermatofibrosarcoma protuberans of the female breast: a rare clinical case. *Breast J* 2015; 21:308-9.
30. Jiang JQ, Huang Z, Wang LH, et al. Dermatofibrosarcoma protuberans of the breast: A case report. *Oncol Lett* 2014;8:1202-04.
31. Roy AD, Nishant K, Joshi D. Unusual presentation of dermatofibrosarcoma protuberans in a male patient's breast: a case report and review of the literature. *World J Surg Oncol* 2015; 13:158.
32. Kim MK, Chang ED, Kim JS, et al. Dermatofibrosarcoma protuberans of the breast. *Breast J* 2013;19:442-43.
33. Yeniay L, Unalp O, Sezak M, et al. Dermatofibrosarcoma protuberans of the breast. *Breast J* 2012;18:493-94.
34. Akhtar K, Sherwani RK, Sen Ray P. Dermatofibrosarcoma Protuberans of Male Breast: An Unusual Presentation. *Oman Med J* 2012;27:e038.
35. Takano EA, Rogers TM, Young RJ, et al. The molecular characterisation of unusual subcutaneous spindle cell lesion of breast. *J Clin Pathol* 2012;65:746-50.
36. Cottier O, Fiche M, Meuwly JY, et al. Dermatofibrosarcoma presenting as a nodule in the breast of a 75-year-old woman: a case report. *J Med Case Rep* 2011;5:503.
37. Mirza TI, Akhtar K, Abbas HB, et al. Dermatofibrosarcoma Protuberans Male Breast: A Case Report. *Oman Med J* 2011;26:e023.
38. Sin FN, Wong KW. Dermatofibrosarcoma protuberans of the breast: a case report. *Clin Imaging* 2011;35:398-400.
39. Mahé E, Sei JF, Chaussade V et al. Mohs micrographic surgery in two children with dermatofibrosarcoma protuberans. *Arch Pediatr* 2011;18:885-88.
40. Park TH, Seo SW, Kim JK, et al. Reconstructive challenge of dermatofibrosarcoma protuberans in the female breast. *World J Surg Oncol* 2011;9:1.
41. Lee HJ, Kim MJ, Choi J, et al. Dermatofibrosarcoma protuberans arising on the skin of the breast. *Breast J* 2011;17:93-5.
42. Kim T, Choi YL, Park HY, et al. Dermatofibrosarcoma protuberans of the breast skin. *Pathol Int* 2010;60:784-86.

43. Ahmed AA, Ostlie D, Fraser JD, et al. Dermatofibrosarcoma protuberans in the breast of a 2-year-old girl. *Ann Diagn Pathol* 2010;14:279-83.
44. Liu SZ, Ho TL, Hsu SM, et al. Imaging of dermatofibrosarcoma protuberans of breast. *Breast J* 2010;16:541-3.
45. Dragoumis DM, Katsohi LA, Amplianitis IK, et al. Late local recurrence of dermatofibrosarcoma protuberans in the skin of female breast. *World J Surg Oncol* 2010;8:48.
46. Pérez OG, Righetti R, Woscoff A, et al. Case for diagnosis. Dermatofibrosarcoma protuberans. *An Bras Dermatol* 2010;85:245-47.
47. Chen X, Chen YH, Zhang YL, et al. Magnetic resonance imaging and mammographic appearance of dermatofibrosarcoma protuberans in a male breast: a case report and literature review. *J Med Case Rep* 2009;3:8246.
48. Kim MS, Kim KS, Han HY, et al. Fibrosarcomatous transformation in dermatofibrosarcoma protuberans of the breast a case report. *J Clin Ultrasound* 2009;37:420-03.
49. Lin JY, Sheen-Chen SM, Hsu W, et al. Dermatofibrosarcoma protuberans of the breast. *Tumori* 2008;94:861-63.
50. Djilas-Ivanovic D, Prvulovic N, Bogdanovic-Stojanovic D, et al. Dermatofibrosarcoma protuberans of the breast: mammographic, ultrasound, MRI and MRS features. *Arch Gynecol Obstet* 2009;280:827-30.
51. Kuefner MA, Anders K, Schulz-Wendtland R, et al. Unusual subcutaneous localisation of a dermatofibrosarcoma protuberans of the female breast: a case report. *Ultraschall Med* 2008;29:535-37.
52. Kamiya T, Saga K, Kaneko R, et al. Postradiation dermatofibrosarcoma protuberans. *Acta Derm Venereol* 2006;86:152-53.
53. Kim L, Park IS, Han JY, et al. Aspiration cytology of fibrosarcomatous variant of dermatofibrosarcoma protuberans with osteoclastlike giant cells in the chest wall: a case report. *Acta Cytol* 2005;49:644-49.
54. Ramakrishnan V, Shoher A, Ehrlich M, et al. Atypical dermatofibrosarcoma protuberans in the breast. *Breast J* 2005;11:217-18.
55. Swan MC, Banwell PE, Hollowood K, et al. Late recurrence of dermatofibrosarcoma protuberans in the female breast: a case report. *Br J Plast Surg* 2005;58:84-7.
56. Murase Y, Takeichi T, Matsumoto T, et al. A juvenile male case of dermatofibrosarcoma protuberans on the breast. *Clin Exp Dermatol* 2019;45:111-13.
57. Cavoşoğlu T, Yavuzer R, Tuncer S. Dermatofibrosarcoma protuberans of the breast. *Aesthetic Plast Surg* 2003;27:104-06.
58. Sandberg AA, Anderson WD, Fredenberg C, et al. Dermatofibrosarcoma protuberans of breast. *Cancer Genet Cytogenet* 2003;142:56-9.
59. Valli R, Rossi G, Natalini G, et al. Dermatofibrosarcoma protuberans of the breast: a case report. *Pathologica* 2002;94:310-03.
60. Zee SY, Wang Q, Jones CM, et al. Fine needle aspiration cytology of dermatofibrosarcoma protuberans presenting as a breast mass. A case report. *Acta Cytol* 2002;46:741-43.
61. Okushiba S, Minagawa H, Shimizu M, et al. A case of spindle cell carcinoma of the breast--long survival achieved by multiple surgical treatment. *Breast Cancer* 2001;8:238-42.
62. Fukushima H, Suda K, Matsuda M, et al. A Case of Dermatofibrosarcoma Protuberans in the Skin over the Breast of a Young Woman. *Breast Cancer* 1998;5:407-09.
63. Geisler DP, Boyle MJ, Malnar KF, et al. Phyllodes tumors of the breast: a review of 32 cases. *Am Surg* 2000;66:360-66.
64. Aliya Sarhan Al Barwani, Sawsan Taif, Reem Ahmed Al Mazrouai, et al. Dermatofibrosarcoma Protuberans: Insights into a Rare Soft Tissue Tumor. *Journal of Clinical Imaging Science* 2016;6:16.
65. Kim MJ, Hur MS, Choi BG, et al. Pedunculated nodules as a variant of dermatofibrosarcoma protuberans. *Ann Dermatol* 2016;28:629-31.

66. Bogucki B, Neuhaus I, Hurst EA. Dermatofibrosarcoma protuberans: a review of the literature. *Dermatol Surg Off Publ Am Soc Dermatol Surg Al* 2012;38:537– 51.
67. Sadullahoglu C, Dere Y, Atasever TR, et al. The Role of CD34 and D2-40 in the Differentiation of Dermatofibroma and Dermatofibrosarcoma Protuberans. *Turk Patoloji Derg* 2017; 1: 223-27.
68. Kreicher KL, Kurlander DE, Gittleman HR, et al. Incidence and survival of primary dermatofibrosarcoma protuberans in the United States. *Dermatol Surg* 2016;42:24–31.
69. Dagan R, Morris C, Zlotecki R, et al. Radiotherapy in the treatment of dermatofibrosarcoma protuberans. *Am J Clin Oncol* 2005;28:537-39.
70. Wang C, Luo Z, Chen J, Zheng B, Zhang R, Chen Y et al. Target therapy of unresectable or metastatic dermatofibrosarcoma protuberans with imatinib mesylate: An analysis on 22 Chinese patients. *Medicine (Baltimore)* 2015; 94:e773.
71. Llombart B, Sanmartín O, López-Guerrero JA, et al. Dermatofibrosarcoma protuberans: Clinical, pathological, and genetic (COL1A1-PDGFB) study with therapeutic implications. *Histopathology* 2009;54:860-72.
72. Uwe W, Dana L, Jacqueline S, et al. Dermatofibrosarcoma Protuberans: Retrospective Single Center Analysis Over 16 Years. *Macedonian Journal of Medical Sciences* 2018; 6:35-37.
73. Liang CA, Jambusaria-Pahlajani A, Karia PS, et al. A systematic review of outcome data for dermatofibrosarcoma protuberans with and without fibrosarcomatous change. *J Am Acad Dermatol* 2014;71:781–86.
74. Mohannad AT, Adriana T, Isidoro DC, et al. Unusual presentation of dermatofibrosarcoma protuberans in a male patient's breast: a case report and review of the literature. *World Journal of Surgical Oncology* 2015;13:158.
75. Arnaud EJ, Perrault M, Revol M, et al. Surgical treatment of dermatofibrosarcoma protuberans. *Plast Reconstr Surg* 1997;100:884–95.
76. Dragoumis DM, Katsohi LA, Amplianitis IK, et al. Late local recurrence of dermatofibrosarcoma protuberans in the skin of female breast. *World J Surg Oncol* 2010; 8: 48.
77. Amr M , Esraa E , Mahmoud N. Dermatofibrosarcoma of The Breast – Case Report and Review of Literature. *Eur J Breast Health* 2018;14:234-37.
78. Imran A, Mohd AM, Lalit MB, et al. Recurrent Dermatofibrosarcoma Protuberance and its Management with Radical Excision and Interval Skin Grafting: A Case Report. *Wjps* 2016;5:67-71.
79. Criscito MC, Martires KJ, Stein JA. Prognostic Factors of Survival in Dermatofibrosarcoma Protuberans-Reply. *JAMA Dermatol* 2016;152:1398–99.