CHAPTER 35

PARANEOPLASTIC PEMPHIGUS (L10.81)

Burak ÜNLÜ[1]
Defne ÖZKOCA[2]

REMEMBER

- Paraneoplastic pemphigus (PNP) is also known as paraneoplastic autoimmune multiorgan syndrome (PAMS).
- The pathogenesis of paraneoplastic pemphigus is not yet fully understood, but some immunological pathways have been identified recently.
- PNP is a very rare disease. Its mortality rate is higher than the underlying disease and can reach rates of 90%. The disease prognosis is very poor.
- The female/male ratio is 1/1 in PNP, and the disease is most common between the ages of 45-70. PNP is rare in children, and the most common underlying cause is the Castleman disease.
- Paraneoplastic pemphigus is associated with HLADRB1*0312, and Cw*14. These HLA antigens may differ racially.
- PNP is a variable multiorgan autoimmune syndrome that typically accompanies a lymphoreticular neoplasia (mainly of B-cell or thymoma-like neoplasms), and causes severe mucocutaneous disease.
- Specific neoplasms associated with PNP include non-Hodgkin lymphomas (most common), chronic lymphocytic leukemia, Hodgkin disease, Castleman disease (angiofollicular lymph node hyperplasia), Waldenström macroglobulinemia, thymoma, malignant melanoma, solid organ tumors, spindle cell neoplasms, and sarcomas.

[1] MD., Basaksehir Cam and Sakura City Hospital, Dermatology Clinic, brkunlu95@gmail.com
[2] MD., Zonguldak Atatürk State Hospital, Dermatology Clinic, defneozkoca@yahoo.com

REFERENCES

Anhalt GJ MD. Paraneoplastic pemphigus. In: Kang S, Amagai M, Bruckner AL, Enk AH, Margolis DJ, McMichael AJ OJ, ed. *Fitzpatrick's Dermatology*. 9th ed. McGraw-Hill Education; 2019.

Amber KT, Valdebran M, Grando SA. Paraneoplastic autoimmune multiorgan syndrome (PAMS): Beyond the single phenotype of paraneoplastic pemphigus. *Autoimmun Rev*. 2018;17(10):1002-1010. doi:10.1016/j.autrev.2018.04.008

Paolino G, Didona D, Magliulo G, et al. Paraneoplastic pemphigus: Insight into the autoimmune pathogenesis, clinical features and therapy. *Int J Mol Sci*. 2017;18(12). doi:10.3390/ijms18122532

Yong AA, Tey HL. Paraneoplastic pemphigus. Australas J Dermatol. 2013;54(4):241–50.

Kaplan I, Hodak E, Ackerman L, Mimouni D, Anhalt GJ, Calderon S. Neoplasms associated with paraneoplastic pemphigus: a review with emphasis on non-hematologic malignancy and oral mucosal manifestations. *Oral Oncol*. 2004;40(6):553-562. doi:10.1016/j.oraloncology.2003.09.020

Ouedraogo E, Gottlieb J, de Masson A, et al. Risk factors for death and survival in paraneoplastic pemphigus associated with hematologic malignancies in adults. *J Am Acad Dermatol*. 2019;80(6):1544-1549. doi:10.1016/j.jaad.2018.03.043

Svoboda SA, Huang S, Liu X, Hsu S, Motaparthi K. Paraneoplastic pemphigus: Revised diagnostic criteria based on literature analysis. J Cutan Pathol. 2021;48(9):1133–8.

Wieczorek M, Czernik A. Paraneoplastic pemphigus: A short review. Clin Cosmet Investig Dermatol. 2016;9:291–5.

Costan V-V, Popa C, Hâncu M, Porumb-Andrese E, Toader M. Comprehensive review on the pathophysiology, clinical variants and management of pemphigus (Review). Exp Ther Med. 2021;22(5):1–13.

Kartan S, Shi VY, Clark AK, Chan LS. Paraneoplastic Pemphigus and Autoimmune Blistering Diseases Associated with Neoplasm: Characteristics, Diagnosis, Associated Neoplasms, Proposed Pathogenesis, Treatment. Am J Clin Dermatol. 2017;18(1):105–26.

Odani K, Itoh A, Yanagita S, Kaneko Y, Tachibana M, Hashimoto T, et al. Paraneoplastic Pemphigus Involving the Respiratory and Gastrointestinal Mucosae. Case Rep Pathol. 2020;2020:1–8.

Broussard KC, Leung TG, Moradi A, Thorne JE, Fine JD. Autoimmune bullous diseases with skin and eye involvement: Cicatricial pemphigoid, pemphigus vulgaris, and pemphigus paraneoplastica. Clin Dermatol [Internet]. 2016;34(2):205–13. Available from: http://dx.doi.org/10.1016/j.clindermatol.2015.11.006

Maruta CW, Miyamoto D, Aoki V, de Carvalho RGR, Cunha BM, Santi CG. Paraneoplastic pemphigus: A clinical, laboratorial, and therapeutic overview. An Bras Dermatol. 2019;94(4):388–98.

Lane JE, Woody C, Davis LS, Guill MF, Jerath RS. Paraneoplastic autoimmune multiorgan syndrome (paraneoplastic pemphigus) in a child: case report and review of the literature *Pediatrics*. 2004;114(4):e513-e516. doi:10.1542/peds.2004-0436

BÖLÜM 36

PARANEOPLASTİK PEMFİGUS (L10.81)

Burak ÜNLÜ[1]
Defne ÖZKOCA[2]

HATIRLA

- Paraneoplastik pemfigus (PNP), paraneoplastik otoimmün multiorgan sendromu (PAMS) olarak da bilinir.
- Paraneoplastik pemfigusun patogenezi henüz tam olarak anlaşılamamıştır, ancak bazı immünolojik yolaklar yakın zamanda tanımlanmıştır.
- PNP oldukça nadir görülen bir hastalıktır. Mortalitesi altta yatan hastalıktan çok daha yüksektir ve %90 gibi oranları bulabilmektedir. Hastalığın prognozu oldukça kötüdür.
- PNP'de kadın/erkek oranı:1/1'dir ve en çok 45-70 yaş arasında izlenir. Çocuklarda nadirdir ve bu yaş grubunda en sık tetikleyici sebep Castleman hastalığıdır.
- Paraneoplastik pemfigusun HLADRB1*0312 ve Cw*14farklı HLA allel tipleri ile ilişkisi bulunmuştur. Bu HLA antijenleri ırksal farklılık gösterebilir.
- PNP, tipik olarak lenforetiküler bir neoplaziye eşlik eder (esas olarak B hücreli veya timoma benzeri neoplazmların) ve şiddetli mukokutanöz hastalığa neden olan değişken bir multiorgan otoimmün sendromudur.
- PNP ile ilişkili spesifik neoplazmalar arasında non-Hodgkin lenfoma (en sık), kronik lenfositik lösemi, Hodgkin hastalığı, Castleman hastalığı (anjiyofolliküler lenf nodu hiperplazisi), Waldens-

[1] Dr., TC Sağlık Bakanlığı Çam ve Sakura Şehir Hastanesi, Dermatoloji Kliniği, brkunlu95@gmail.com
[2] Dr., TC Sağlık Bakanlığı Zonguldak Atatürk Devlet Hastanesi, Dermatoloji Kliniği, defneozkoca@yahoo.com

KAYNAKLAR

Anhalt GJ MD. Paraneoplastic pemphigus. In: Kang S, Amagai M, Bruckner AL, Enk AH, Margolis DJ, McMichael AJ OJ, ed. *Fitzpatrick's Dermatology*. 9th ed. McGraw-Hill Education; 2019.

Amber KT, Valdebran M, Grando SA. Paraneoplastic autoimmune multiorgan syndrome (PAMS): Beyond the single phenotype of paraneoplastic pemphigus. *Autoimmun Rev*. 2018;17(10):1002-1010. doi:10.1016/j.autrev.2018.04.008

Paolino G, Didona D, Magliulo G, et al. Paraneoplastic pemphigus: Insight into the autoimmune pathogenesis, clinical features and therapy. *Int J Mol Sci*. 2017;18(12). doi:10.3390/ijms18122532

Yong AA, Tey HL. Paraneoplastic pemphigus. Australas J Dermatol. 2013;54(4):241–50.

Kaplan I, Hodak E, Ackerman L, Mimouni D, Anhalt GJ, Calderon S. Neoplasms associated with paraneoplastic pemphigus: a review with emphasis on non-hematologic malignancy and oral mucosal manifestations. *Oral Oncol*. 2004;40(6):553-562. doi:10.1016/j.oraloncology.2003.09.020

Ouedraogo E, Gottlieb J, de Masson A, et al. Risk factors for death and survival in paraneoplastic pemphigus associated with hematologic malignancies in adults. *J AmAcad Dermatol*. 2019;80(6):1544-1549. doi:10.1016/j.jaad.2018.03.043

Svoboda SA, Huang S, Liu X, Hsu S, Motaparthi K. Paraneoplastic pemphigus: Revised diagnostic criteria based on literature analysis. J Cutan Pathol. 2021;48(9):1133–8.

Wieczorek M, Czernik A. Paraneoplastic pemphigus: A short review. Clin Cosmet Investig Dermatol. 2016;9:291–5.

Costan V-V, Popa C, Hâncu M, Porumb-Andrese E, Toader M. Comprehensive review on the pathophysiology, clinical variants and management of pemphigus (Review). Exp Ther Med. 2021;22(5):1–13.

Kartan S, Shi VY, Clark AK, Chan LS. Paraneoplastic Pemphigus and Autoimmune Blistering Diseases Associated with Neoplasm: Characteristics, Diagnosis, Associated Neoplasms, Proposed Pathogenesis, Treatment. Am J Clin Dermatol. 2017;18(1):105–26.

Odani K, Itoh A, Yanagita S, Kaneko Y, Tachibana M, Hashimoto T, et al. Paraneoplastic Pemphigus Involving the Respiratory and Gastrointestinal Mucosae. Case Rep Pathol. 2020;2020:1–8.

Broussard KC, Leung TG, Moradi A, Thorne JE, Fine JD. Autoimmune bullous diseases with skin and eye involvement: Cicatricial pemphigoid, pemphigus vulgaris, and pemphigus paraneoplastica. Clin Dermatol [Internet]. 2016;34(2):205–13. Available from: http://dx.doi.org/10.1016/j.clindermatol.2015.11.006

Maruta CW, Miyamoto D, Aoki V, de Carvalho RGR, Cunha BM, Santi CG. Paraneoplastic pemphigus: A clinical, laboratorial, and therapeutic overview. An Bras Dermatol. 2019;94(4):388–98.

Lane JE, Woody C, Davis LS, Guill MF, Jerath RS. Paraneoplastic autoimmune multiorgan syndrome (paraneoplastic pemphigus) in a child: case report and review of the literature. *Pediatrics*. 2004;114(4):e513-e516. doi:10.1542/peds.2004-0436