

Bölüm 4

BİYOBELİRTEÇ OLARAK SuPAR

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GİRİŞ

Soluble ürokinaz plazminojen aktivatör reseptörü (SuPAR), ilk olarak 1990'lar da, kanserin ilerleyişinin ve enfeksiyöz hastalıkların bir biyobelirteci olarak tarif edilmiş ve o zamandan beri, SuPAR klinik, tanısal, prognostik amaçlı farklı hastalıklarda çalışılmıştır [1]. SuPAR, glikozil-fosfatidilinositol bağlı membran proteini olan ürokinaz tipi plazminojen aktivatör reseptörünün (uPAR) çözünür şeklidir. Membrana bağlı form olarak uPAR, monositler, aktive edilmiş T-lenfositler, endotel hücreleri, keratinositler, makrofajlar, düz kas hücreleri, fibroblastlar ve megakaryositler, dahil olmak üzere çeşitli hücrelerde bulunur, membrana bağlı olan uPAR'ın salınmasıyla ortaya çıkan çözünebilir form olan SuPAR plazma, idrar, kan, serum, beyin omurilik sıvısında immün sistemin aktivasyon derecesine göre farklı konsantrasyonlarda saptanır [2]. Ürokinaz plazminojen aktivatör reseptörü (uPAR) ürokinaz plazminojen aktivatörünün (uPA) reseptörüdür. uPA ve doku plazminojen aktivatörü (tPA) plazminojenin plazmine dönüşümünde ve böylelikle fibrinoliziste rol almaktadır. Koagülasyonda özellikle tPA, önemli bir role sahip iken, uPA'nın ayrıca hücre göçünü, adezyonunu ve çoğalmasını düzenlediği ve çeşitli enflamatuvar ve immün yanıtlarda görev aldığı görülmüştür [3]. UPA'nın etkisi; endotelde, aktif T hücrelerde, nötrofil ve makrofajlarda ekspres edilen reseptörü olan uPAR'a bağlanarak ortaya çıkar. Enflamasyon sonucu artan kemotripsin, fosfolipaz C ve uPA gibi proteazlar hücre yüzeyinde dolaşıma uPAR salınmasına ve çözünebilir form olan SuPAR oluşumuna neden olurlar [4]. Enflamatuvar hücrelerin yüzeyinden proteolizisle sıyrılıp dolaşıma katılan SuPAR ise kemotaktik özelliği ile monosit, nötrofil gibi enflamatuvar hücrelerin toplanmasını ve hematopoetik kök hücrelerin mobilizasyonunu kolaylaştırır [5]. Böylelikle dolaşımdaki SuPAR hem enflamatuvar hücreler hem de inflamasyon sırasında oluşan proteazların seviyesi hakkında bilgi verebilir. Artmış SuPAR se-

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maya başladığı dönemde erken uyarı veren bir belirteç olarak kullanılabilceği, tanısal özelliğinden çok prognostik özelliğinin daha öne çıktığı bir biyobelirteç olabileceği sonucuna varılmıştır.

Anahtar Kelimeler: Soluble ürokinaz plazminojen aktivatör reseptörü, inflamasyon, organ hasarı, biyobelirteç

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