BÖLÜM 14

TETRASİKLİNLERİN VE SÜLFANOMİDLERİN ETKİ SPEKTRUMLARI VE KULLANIM ALANLARI

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Giriş

Tetrasiklinler 1948 yılında bulunmuş, mikroorganizmanın protein sentezini inhibe ederek etkinlik gösteren bakteriostatik antibiyotiklerdir. Tetrasiklin grubunun başlıca üyeleri; tetrasiklin, doksisiklin, minosiklin, tigesiklin, eravasiklin ve omadasiklin'dir. Bu antibiyotiklerin birçok ortak noktaları bulunmakla beraber kendi aralarında çok önemli farklı karakterisiktik özelliklere sahiptirler. Trimetoprim, dihidrofolat redüktaz üzerinden folik asit ve pirimidin sentezini inhibe eden bir moleküldür. Trimetoprim-sulfometoksazol başta üriner sistem enfeksiyonları olmak üzere çok farklı enfeksiyoz hastalıkların tedavisinde kullanılmaktadır. Okuyucular bu bölümde tetrasiklinlerinlerin ve trimetoprim-sulfometoksazol'un genel özellikleri, klinik kullanım alanlarındaki güncel gelişmeler hakkında bilgi sahibi olacaktır.

1. Tetrasiklinlerinler

Tarihsel süreç

Tetrasiklinler mikolog Benjamin M. Duggar tarafından 1948 yılında klortetrasiklinin keşfi ile antibiyotik dünyasına katılmış olup, geniş spektrumlu bir antibiyotik sınıfını oluşturmaktadır. Bu sınıf bakteriyostatik özellikte olup geniş spektrumunun içinde gram-pozitif bakteriler, gram-negatif bakteriler, hücre içi organizmaları ve parazitler de mevcuttur (1,2).

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Oral %40 biyoyararlanım olan iklaprimin iv kullanımında 4-8 saate kadar etkili olduğu gösterildi. Terminal yarı ömrü yaklaşık 2 saattir ve ilacın hepatik metabolitleri idrarla atılır. Gram pozitif patojenlere bağlı hastanede edinilen pnömonide yapılan bir faz II çalışmasında, iklaprimin etkililiği vankomisine benzer sonuçlandı. Gram pozitif organizmaların neden olduğu akut bakteriyel deri ve yumuşak doku enfeksiyonlarında vankomisine kıyasla bir faz III randomize kontrollü çalışmada, IV iklaprim, non inferiorite ve anlamlı güvenlik aralığı gösterdi (93).

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