

# Bölüm 13

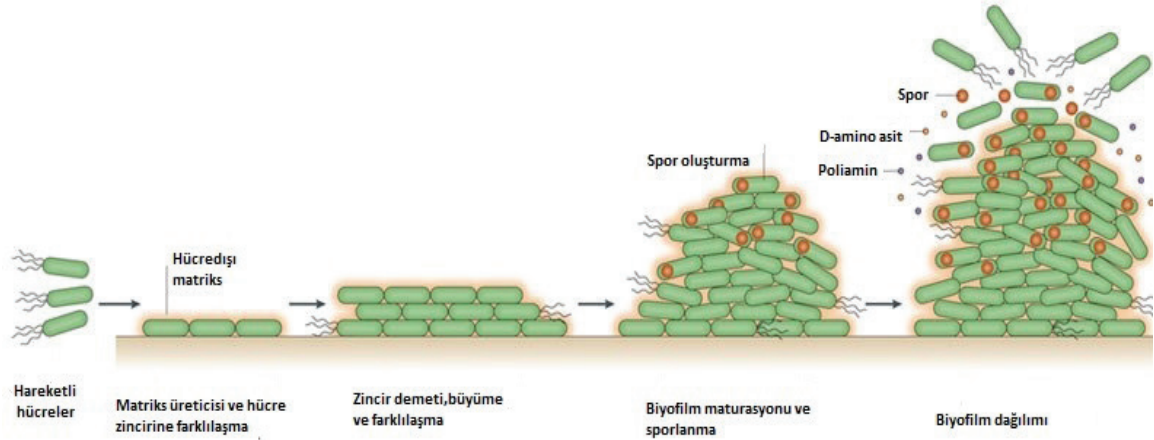
## ORTOPEDİK İMPLANT VE ENFEKSİYONLARI

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### ORTOPEDİK İMPLANTLARDA BAKTERİ STRATEJİLERİ

#### BIYOFİLM MİKRO-EKOSİSTEM

Yapılan çalışmalar nozokomiyal enfeksiyonların yaklaşık %65'inden, tüm prostetik enfeksiyonların ise yaklaşık %80'ninden bu yapının sorumlu olduğu gösterildi. Biyofilm oluşumunun sebep olduğu enfeksiyonların, tedavi giderleri oldukça yüksektir. Bu yapı aslında bir mikro-ekosistemdir. Bu sistem içinde bakterinin ihtiyaç duyduğu tüm mühtemilat bulunmaktadır. Farklı türlerde oluşan biyofilmlerde her tür kendi mikrokolonisini oluşturur. Bu mikrokoloniler birbirlerinden su kanalları aracılığıyla ayrılmıştır. Bu kanallar içinde devam eden su akışı, besin maddelerinin ve oksijenin taşınmasını sağlar. Sistemin yapısına, mikroorganizmanın türüne ve çevresel faktörlere bağlı olarak olgun bir biyofilmin oluşması birkaç saat ile birkaç hafta zaman alır.



Bu yapı içinde ki bakteri, proteinleri inaktive edebilir, metabolizmayı değiştirebilir, bağışıklık tepkilerine direnci arttırabilir ve sabit bir büyüme evresinde antibiyotik etkisini azaltabilir. Planktonik bakterilerin teşhisi ve üretilmesi oldukça kolaydır. Ancak bu eko sistem içinde bulunan bakterilerin hem teşhisi hemde üretilmesi oldukça güçtür. Ayrıca bu bakteriler konakçının savunma sisteminden etkilenmez. Sistemik enflamatuar cevabın yetersizliği nedeniyle klinik tablo belirsizdir. Tedaviye cevap alınmaması nedeniyle prognoz çoğunlukla kötüdür. Bu bakterilerin protez yüzeyine yapışması için fibronectin, fibrinojen, laminin ve kollajen gibi konak doku proteinlerine ihtiyaç duyarlar. Aslında bu proteinlerden yola çıkarak bakterinin yüzey yapışma evresini ortadan

Not: Bu teknik yumuşak doku sorunu olmayan veya rekonstrükte edilmiş, defekti veya kısalığı olmayan tüm olgularda uygulanabilir. (Tip-A; Tip-B1)

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