BÖLÜM 21

KAPNOMETRİ, KAPNOGRAFİ VE YORUMLANMASI

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GİRİŞ

Kapnografi, ekshalasyon havasındaki karbondioksit (CO_2) düzeyini ölçerek, ventilasyon ve solunum fizyolojisine dair anlık, non-invaziv bilgi sunan bir izleme yöntemidir. Özellikle oksijen tedavisi alan hastalarda oksijen desatürasyonu oluşmadan önce solunum yetmezliğini belirleyebildiği için, postoperatif solunum depresyonunun ve olumsuz olayların erken tespiti için klinik uygulamada çok önemlidir. Hipoventilasyon ve diğer solunum sorunları için erken uyarı sistemi görevi görür. Böylece hasta güvenliğini artırır ve yoğun bakım nakilleri veya ölüm oranı gibi ciddi komplikasyonları önlemek için zamanında müdahaleye olanak tanır (1).

Kapnometri ve kapnografi, acil serviste kritik öneme sahip izleme yöntemleri olup, hastanın solunum durumu hakkında gerçek zamanlı bilgi sağlayarak hipoventilasyon, hava yolu tıkanıklığı ve solunum depresyonunu erken dönemde saptamaya yardımcı olur. Bu sayede oksijen desatürasyonu gelişmeden müdahale imkânı sunar ve özellikle prosedürel sedasyon sırasında hasta güvenliğini artırır. Sürekli kantitatif kapnografi kullanımı, hipoksi, hipoksik beyin hasarı ve ölüm gibi ciddi komplikasyonların riskini azaltarak acil durumlarda hasta sonuçlarını iyileştirmede hayati bir rol oynamaktadır. Hipoventilasyon, hava yolu tıkanıklığı ve solunum depresyonunu erken dönemde saptayarak oksijen desatürasyonu derinleşmeden müdahale edilmesine olanak tanır. Özellikle prosedürel sedasyon sırasında, hasta güvenliğini artırarak hipoksiyi ve hipoksiye bağlı beyin hasarını ve buna bağlı ölümlerin riskini azaltmada hayati rol oynar (2).

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5.1. Öneriler

Uluslararası ve ulusal kılavuzlar artık trakeal tüplü, supraglottik hava yollu veya derin sedasyon altındaki tüm hastalar için asgari standart olarak sürekli dalga formu kapnografisini önermektedir. Protokoller, konsensüs temelli alarm limitlerini, düzenli ekipman kontrollerini ve kapnografi ölçümlerinin dokümantasyonunu içermelidir. Bölümlerin, özellikle yüksek riskli veya kaynakları kısıtlı ortamlarda, cihaz ayarlarını standartlaştırmaları ve kapnografinin daha geniş izleme paketlerine entegre edilmesini sağlamaları teşvik edilmektedir (44,45).

Sürdürülebilir başarı, yalnızca ilk eğitim ve ekipman tedarikini değil, aynı zamanda sürekli eğitimi, düzenli protokol incelemelerini ve ekipman bulunabilirliği ve personel devir hızı gibi engellerin ele alınmasını da gerektirir. Kapnografinin tüm klinik ortamlardaki güvenlik faydalarını en üst düzeye çıkarmak için, güçlü eğitimi net ve uygulanabilir protokollerle birleştirmek çok önemlidir (44,45).

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