BÖLÜM 19

NÖROFİZYOLOJİ VE ANESTEZİ

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GİRİŞ

Nöroanestezi nörofizyoloji ve artmış intrakaranial basıncın patofizyolojisinin iyi anlaşılmasını gerektiren giderek genişleyen bir uzmanlık alanıdır. Nöroanestezist bir yandan optimum operasyon koşullarını sağlarken, diğer yandan intraoperatif olarak uygun serebral perfüzyon basıncının (SPB) sürdürülmesinden sorumludur. Bunu sağlayabilmek için intraoperatif hipertansif dalgalanmaları önleyecek uygun anestezik tekniğin kullanılması ve serebral venöz drenajın iyi korunacağı uygun hasta pozisyonunun hastaya verilmesi çok önemlidir.

Beyin aslında kendisi için koruyucu bir bariyer olan kafatası içinde bulunmaktadır. Bununla beraber beyinin patolojik lezyonlarının varlığında bu sert yapı beyine zarar verebilir. Kafatası komponentleri arasındaki ilişki ilk olarak 1783 yılında Alexander Munro ve asistanı George Kellie tarafından tanımlanmıştır. 1846 yılında ise George Burrows modifiye Munro-Kellie doktrinini yayınlamıştır (1). Harvey Cushing ise kafatası içerisinde beyin dokusu (%80), kan (%10) ve beyin omurilik sıvısı (%10) volümlerinin sabit olduğunu tanımlamıştır. Buna göre bir komponentteki herhangi artış, diğer bir veya iki komponentteki azalma ile kompanse edilmelidir (2). Normal koşullarda intrakaranial basınç (ICP) serebrosipinal sıvı, kan ve beyin dokusu arasındaki bu ilişki ile normal aralığında tutulmaktadır. ICP daki artış, serebral perfüzyonda azalmaya yol açarak zararlı olabilmektedir.

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ila 50 µg/kg (114) bolus dozda alfentanil; 0. 2 ila 0. 3 mg/kg dozlarında etomidat (115) ve 2, 5 µg/kg bolus olarak remifentanil'in nöbet odaklarını aktive etmede etkili olduğu bildirilmiştir (116).

EEG ile lokalizasyondan sonra (veya başlangıçta nöbetle ilgili olmayan rezeksiyonlarda), motor, duyusal veya konuşma kesintisi etkilerinin gözlemlenmesiyle kortikal yüzeyin elektriksel stimülasyonu ile fonksiyonel test yapılır. Kortikal stimülasyon sırasında, anestezist büyük konvülsiyonları tedavi etmeye hazır olmalıdır. Nöbetler genellikle uyarının kesilmesiyle veya korteksin soğuk salinle yıkanmasıyla durur. Kendi kendini sınırlamadıklarında, farmakolojik müdahale (örn. 0, 5-1, 0 mg/kg'lık artışlarla propofol ile) garanti edilmelidir. Bununla birlikte, bir süre daha sonraki EEG lokalizasyonuna müdahale edebileceğinden, nöbetin kendiliğinden sona ermeyeceği netleşene kadar propofol kısa süreliğine kesilmelidir (107).

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