BÖLÜM 1

UYKUNUN FİLOGENEZİ, UYKU FİZYOLOJİSİ VE ONTOLOJİSİ

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GİRİŞ

Uyku-uyanıklık kontrolü, beyinde yaygın olarak dağılmış birden fazla merkez tarafından sağlanır. Tarihsel olarak, asendan retiküler sistemin monoaminerjik ve kolinerjik nöronları ilk keşfedilenlerdir. Gama aminobütirik asit kullanan (GABAerjik) ve glutamaterjik sistemlerin uyanıklık ve uykuyu sağlamadaki rolleri nispeten yakın zamanda anlaşılmıştır.

Uyku-uyanıklık döngüsünde sistem kabaca uyanıklık ve uykuyu sağlayan sistemlerin karşılıklı inhibisyonuna dayanır. Uykuyu sağlayan sistemler uyanıklığı sağlayan sistemleri engellediğinde uyku gerçekleşir, uyanıklığı sağlayan sistemler uykuyu sağlayan sistemleri engellediğinde ise uyanıklık gerçekleşir. Uykuyu sağlayan sistemler GABA ve galanin aracılığıyla uyanıklık merkezlerini engeller. Uyanıklık merkezleri ise asetilkolin, norepinefrin ve serotonin aracığıyla uyku merkezlerini engeller.[1]

Uyku-uyanıklık döngüsü; uyanıklıktan, NREM uykusuna ve ardından REM uykusuna doğru ilerler. Bu dönemlerin her biri karmaşık bir düzenleme yoluyla birden fazla nöron grubu tara-

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LH'nin hipokretin nöronları, MCH nöronları ile karışmıştır ancak REM uykusu üzerinde tamamen zıt etkilere sahiptir. Hipokretin-Anın ventrikül içi enjeksiyonu, REM uykusunu azaltır.

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