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## GİRİŞ

Portal venöz sistem, gastrointestinal sistemden (rektum distali hariç) dalak, pankreas ve safra kesesinden gelen kanı karaciğere taşır. Portal ven (PV), splenik ve superior mezenterik venlerin birleşiminden oluşur ve karaciğere doğrudan boşalarak kan akışının yaklaşık %75'ini sağlar. Hepatik arter ise geri kalan karaciğer kan akışını sağlar (1).

Portal hipertansiyon, basit bir ifadeyle, portal ven ve dallarındaki basıncın artışı olarak tanımlanır. Esasında, portal hipertansiyon, splenomegali, asit, gastrointestinal varisler ve ensefalopati gibi belirtilerle prezente olabilen ve artmış hepatic venöz basınç gradiyenti (HVPG) ile tanımlanan klinik bir sendromdur. Bu sendrom, portal basınç gradiyentinin (portal ven ile hepatic venler arasındaki basınç farkı) 5 mmHg'den büyük olmasıyla karakterizedir. Bu gradiyent, portal hipertansiyonu tanımlasa da, 10mmHg veya daha büyük bir gradiyent klinik olarak anlamlı portal hipertansiyonu ifade eder. Çünkü bu basınç farkı değeri varislerin gelişimini, sirozun dekompanzasyonunu ve hepatosellüler karsinom gelişimini öngörüdür (2,3).

## PATOFİZYOLOJİ

Portal basıncın temel belirleyicileri, portal kan akışı ve intrahepatik dirençtir. Sirozda, portal kan akışına karşı artan intrahepatik direnç, portal hipertansiyonun gelişmesinde birincil faktördür. Artmış intrahepatik direncin büyük bir kısmı, sirotik sürecin neden olduğu fibrozis, rejeneratif nodül oluşumu gibi yapısal bozuklukların sonucudur. Hepatik stellat hücreler (HSC'ler) ve karaciğer sinüzoidal endotelial hücreleri (LSEC'ler) gibi hepatic hücrelerdeki fenotipik değişikliklerin, artmış intrahepatik vasküler dirençte önemli roller oynadığı bilinmektedir ve bu konuda yoğun araştırmalar yapılmaktadır. Diğer bir intrahepatik direnç artış nedeni ise vazokonstriksiyondur. Vazokonstriksiyon, geri döndürülebilir ve dinamik bir durum olup, artan direncin %25'ine kadar katkıda bulunabilir. Bu duruma neden olan faktörler arasında endotel disfonksiyonu, intrahepatik nitrik oksit (NO) üretiminin yetersizliği, artmış vazokonstriktör seviyeleri ve hepatic stellat hücrelerinin kasılmasını artıran faktörler bulunmaktadır (4-8).

Artmış intrahepatik basınç, splanknik arteriyel vazodilatasyonun gelişimine yol açar. Bu vazodila-

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