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Nerve growth factor and diarrhea-predominant irritable bowel syndrome (IBS-D): a potential therapeutic target?

Keywords: **Nerve growth factor, Diarrhea-predominant irritable bowel syndrome, Pathophysiology, Visceral hypersensitivity, Intestinal barrier dysfunction**

Introduction & Methods

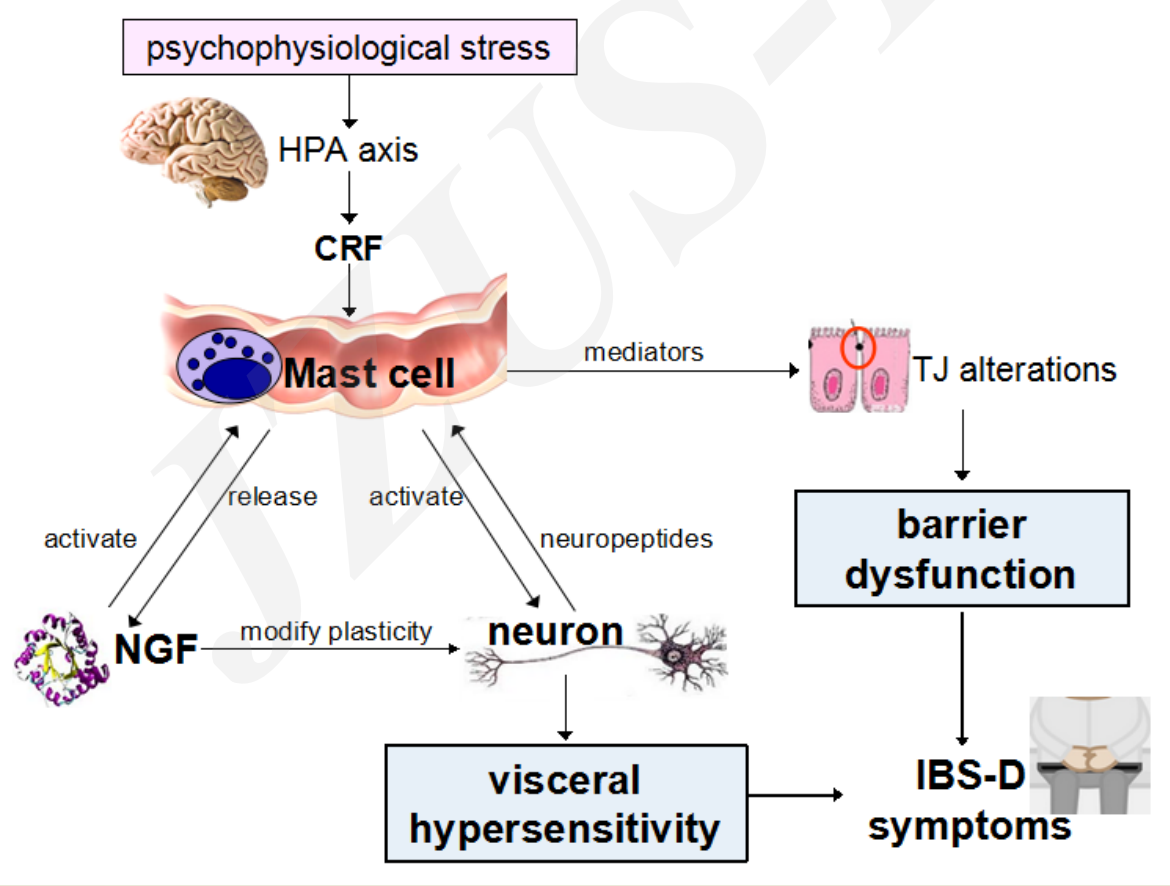
- The pathogenesis of IBS-D has not been completely understood.
- A **neural-immune-endocrine network** mechanism has gained increasing attention.
- This study reviewed the role of **NGF** in IBS-D pathophysiology.
- Pubmed, EMBASE, Web of Science, CNKI, VIP and Wanfang databases were searched until May 2015.

Results

Fig.1: Flow diagram of the study selection and exclusion process

Table 1: Key data from the various studies exploring the role of NGF in IBS pathophysiology

Fig.2: NGF-MC-nerve interaction in IBS-D pathophysiology



Conclusions

- NGF may play a role in IBS-D pathophysiology.
- Its relationship with **visceral sensitivity** and the **intestinal barrier function**, as well as mobility, gut flora, mental condition, and the genetic background of IBS-D patients, deserves further investigation.
- In the future, NGF may be a promising **therapeutic target** in IBS-D.