

BAGIRSAK SAĞLIĞINDA NÖRAL TERAPİ

GÜLRİZ ÖZBEK

FİZİKSEL TIP VE REHABİLİTASYON UZMANI

MANUEL TERAPİ, OSTEOPATİ, HİPNOTERAPİ,
PSİKONÖROİMMUNOLOJİ

NÖRALTERAPİ



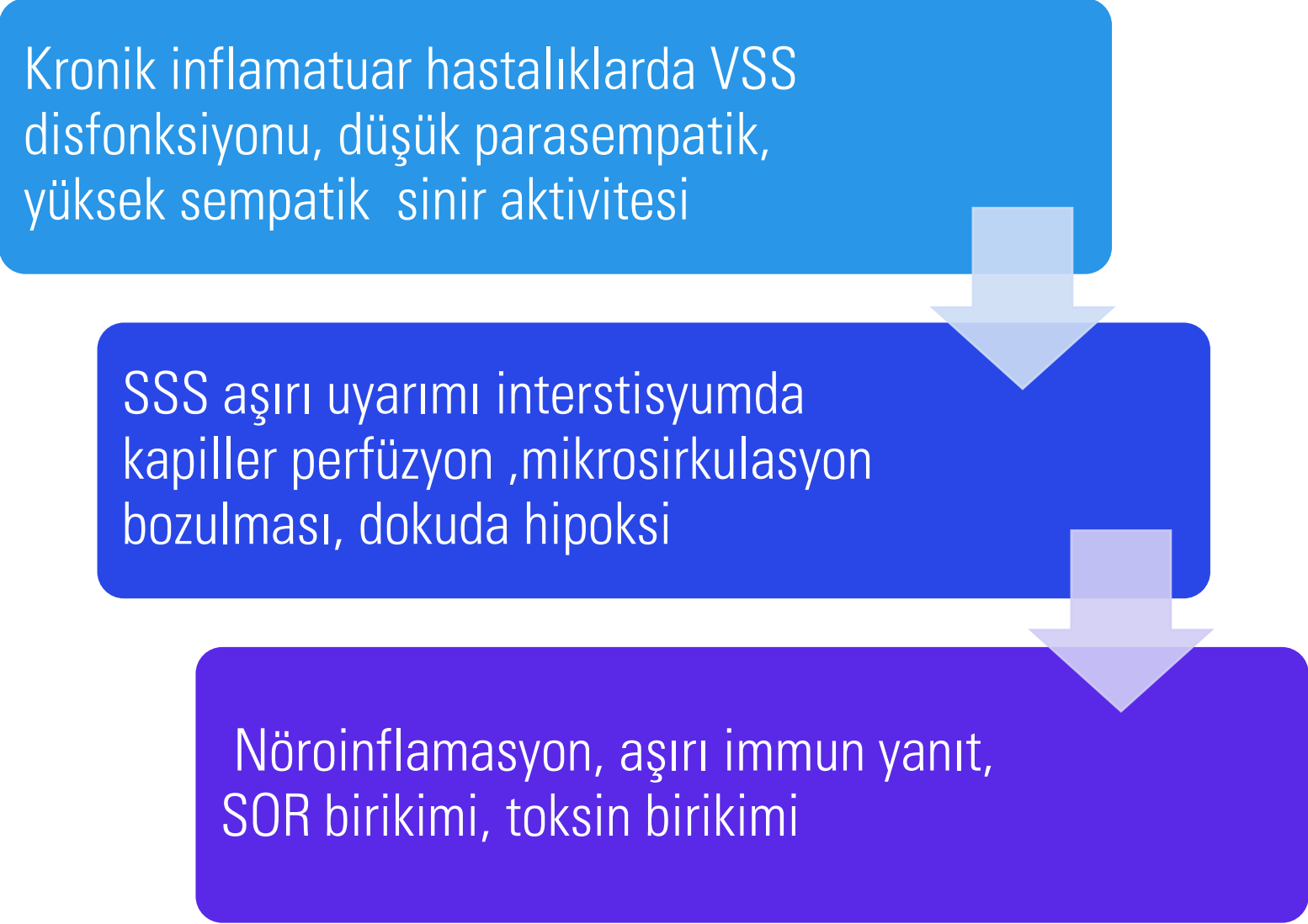
- Otonom sinir sisteminin regülasyonunu hedefler
- Nöromodulator, immunmodulator
- Lokal anesteziklerin lokal ve sistemik etkileri
- Depolarize membran potansiyelinde değişim
- Segmental alana, bozucu alan etkisi
- Aşırı uyarılmış Sempatik SS inhibisyonu amaçlanır
- Nöroplastisiteden yararlanarak OSS de nöroinflamasyonun kontrolü



NÖRAL TERAPİ NEDİR?

- OSS in afferent ve efferent yollarının düşük dozlarda LA (prokain, lidokain) enjeksiyonu ile uyarılması veya uyarının engellenmesiyle bozulmuş doku ve organ perfüzyonunun yeniden düzenlenmesini sağlayan tanı ve tedavi yöntemidir.
- Direkt iğne stimülasyonu ve indirekt LA lerin geçici sinir bloğu etkisi
- OSS deki regulatuar etki LA in lokal etkisinden daha uzun süreli ve kalıcıdır.
- Tedavi yanıtı göre düzenlenen seanslarla uygulanır

Kronik inflamatuvar hastalıklarda VSS
disfonksiyonu, düşük parasempatik,
yüksek sempatik sinir aktivitesi



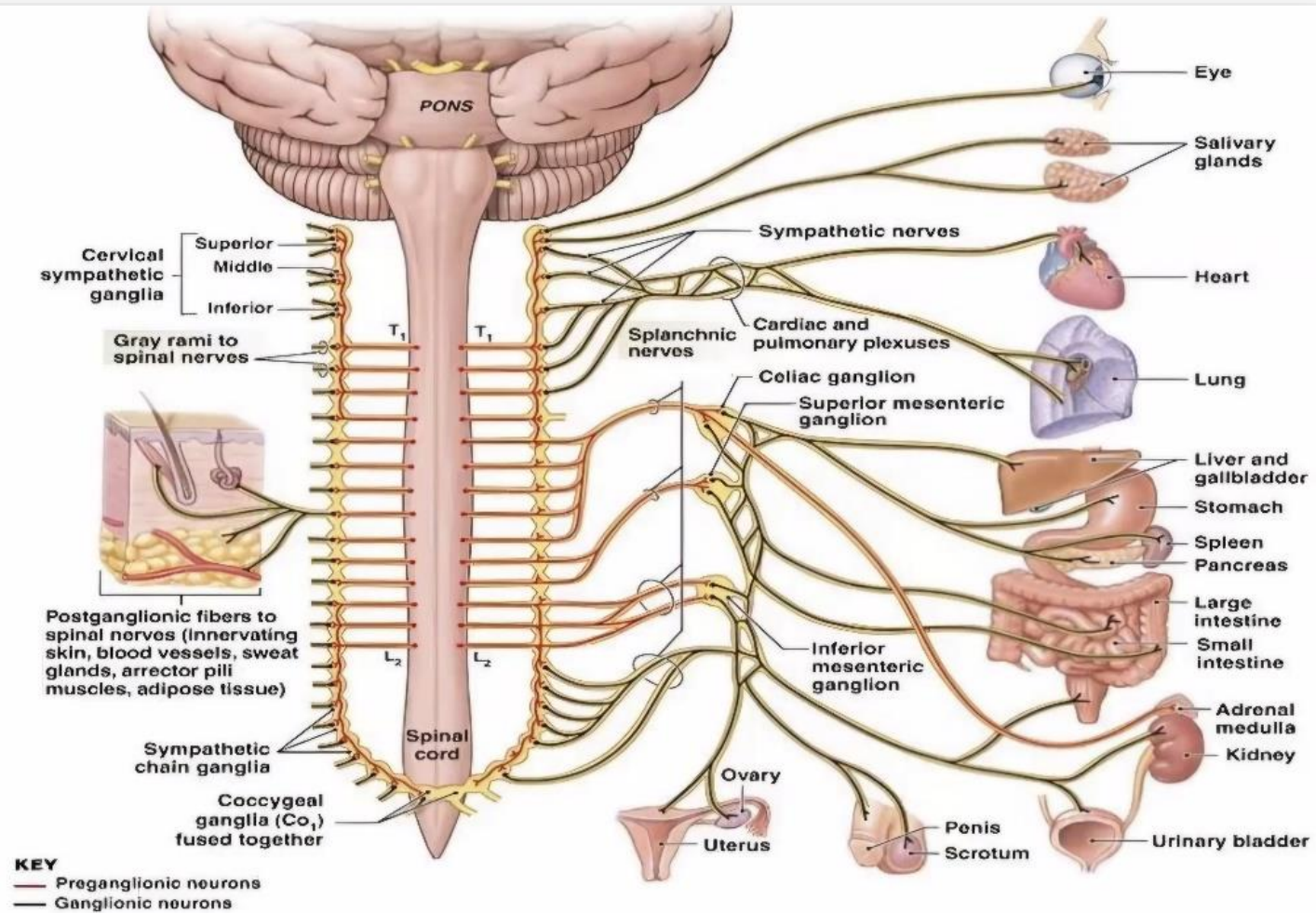
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graph TD; A[Kronik inflamatuvar hastalıklarda VSS disfonksiyonu, düşük parasempatik, yüksek sempatik sinir aktivitesi] --> B[SSS aşırı uyarımı interstisyumda kapiller perfüzyon ,mikrosirkulasyon bozulması, dokuda hipoksi]; B --> C[Nöroinflamasyon, aşırı immun yanıt, SOR birikimi, toksin birikimi];
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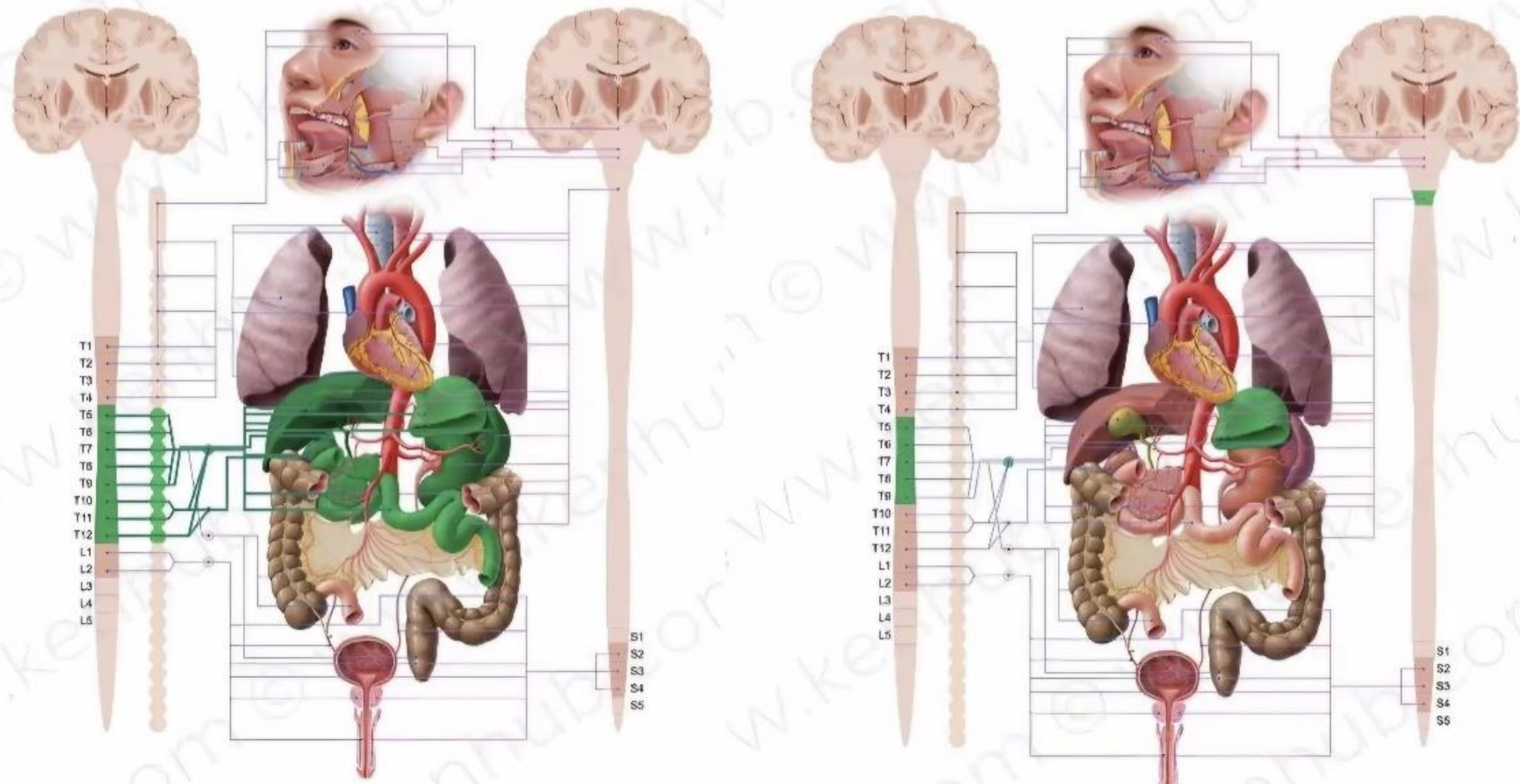
SSS aşırı uyarımı interstisyumda
kapiller perfüzyon ,mikrosirkulasyon
bozulması, dokuda hipoksi

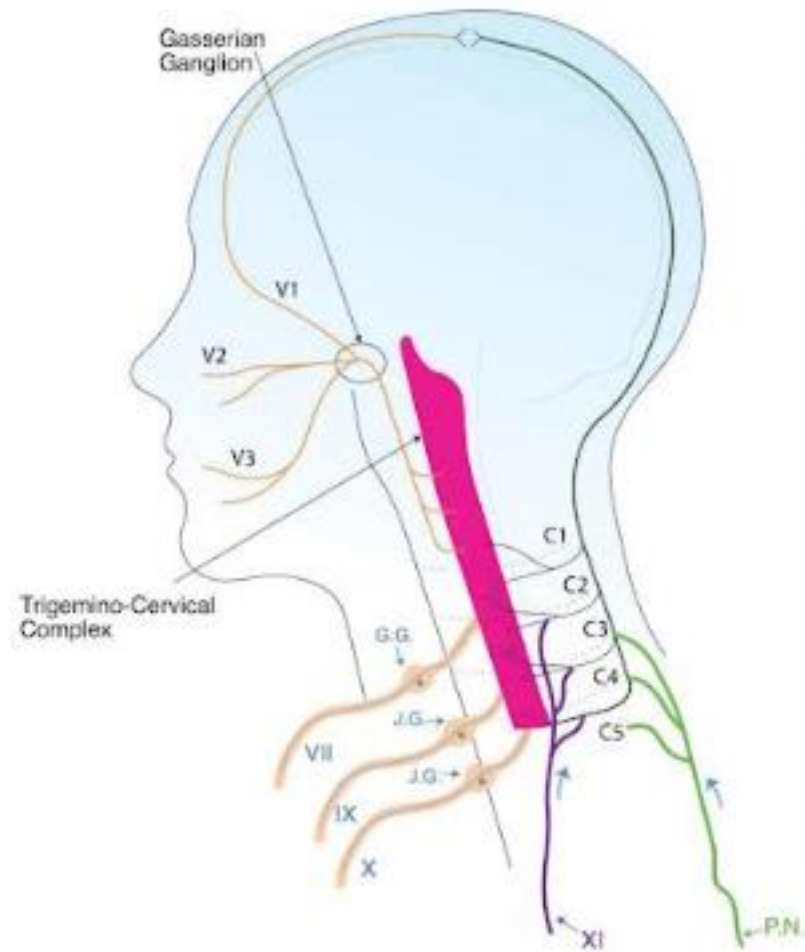
Nöroinflamasyon, aşırı immun yanıt,
SOR birikimi, toksin birikimi

Otonom sinir sistemi

Vejetatif Sinir Sistemi (VSS)

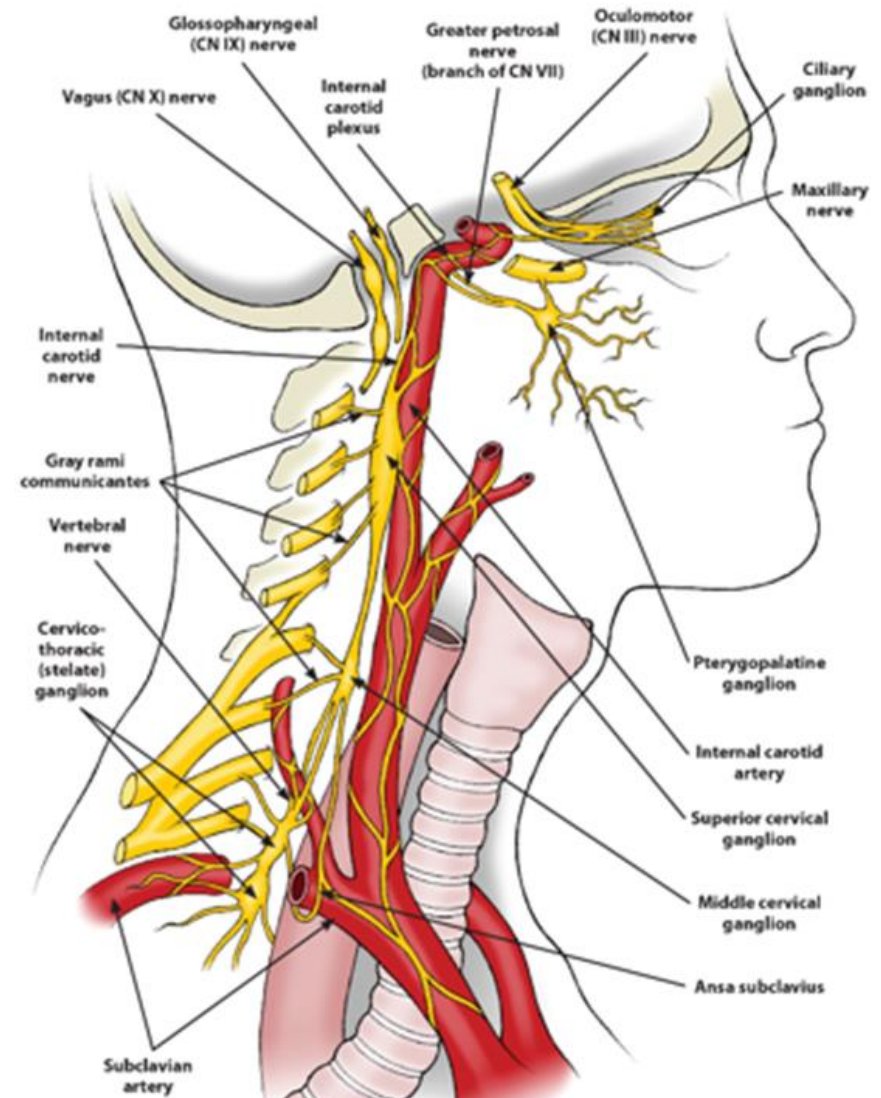




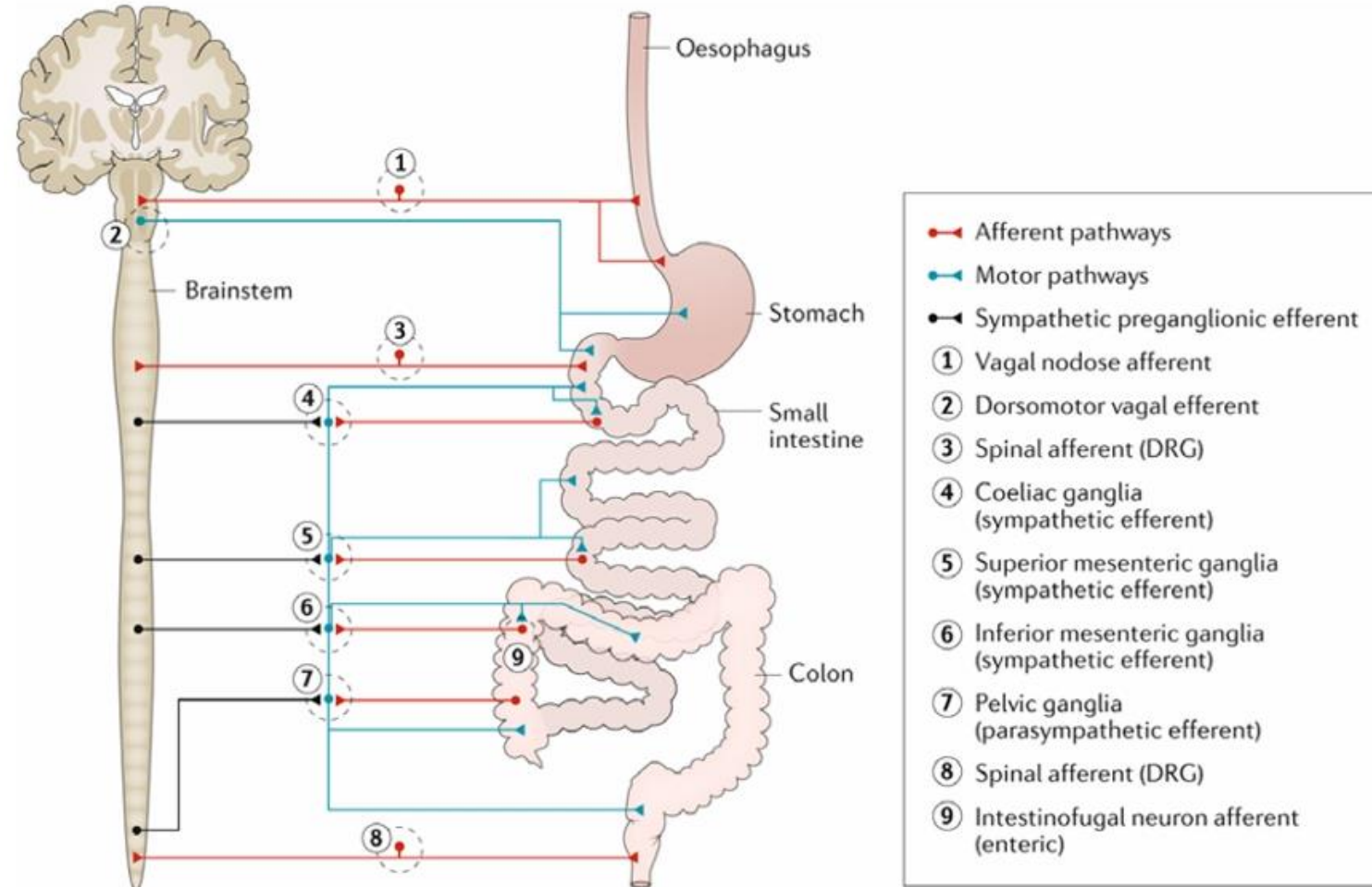


The Neurologic Network of the afferences of TCC / The Neurologic Network of the Sensory - Motor Cross-talk between the Head & Neck.

- 1- Gasserian ganglion.
- 2- TCC : Trigemino -Cervical-Complex.
- 3- GG : Gasserian ganglion.
- 4- JG : Jugular ganglion.
- 5- P.N. : Phrenic Nerve.
- 6- VII Facial Nerve.
- 7- IX Glossopharyngeal Nerve.
- 8- X Vagus Nerve.
- 9- XI Spinal accessory Nerve.

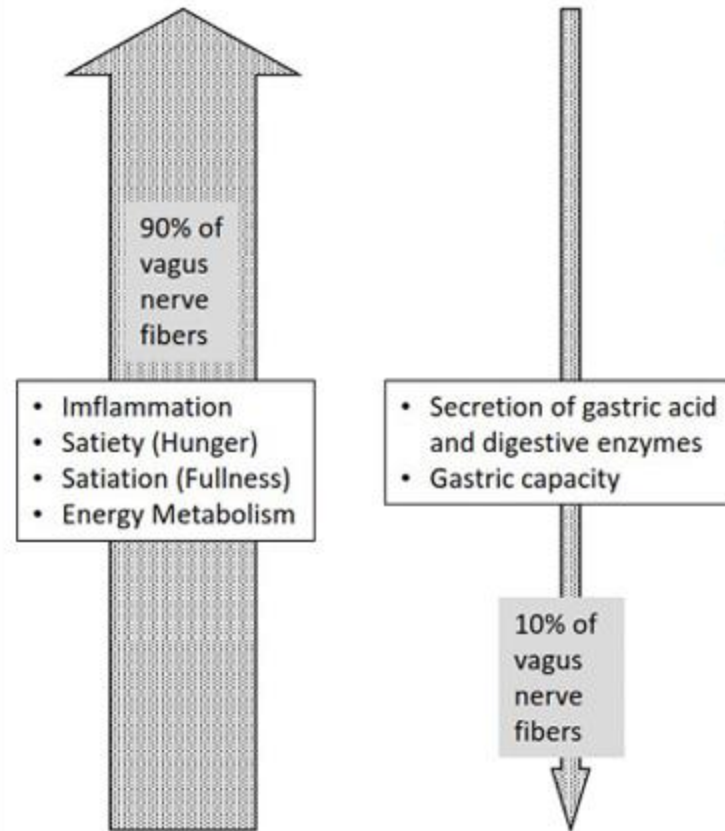


CaringMedical.com

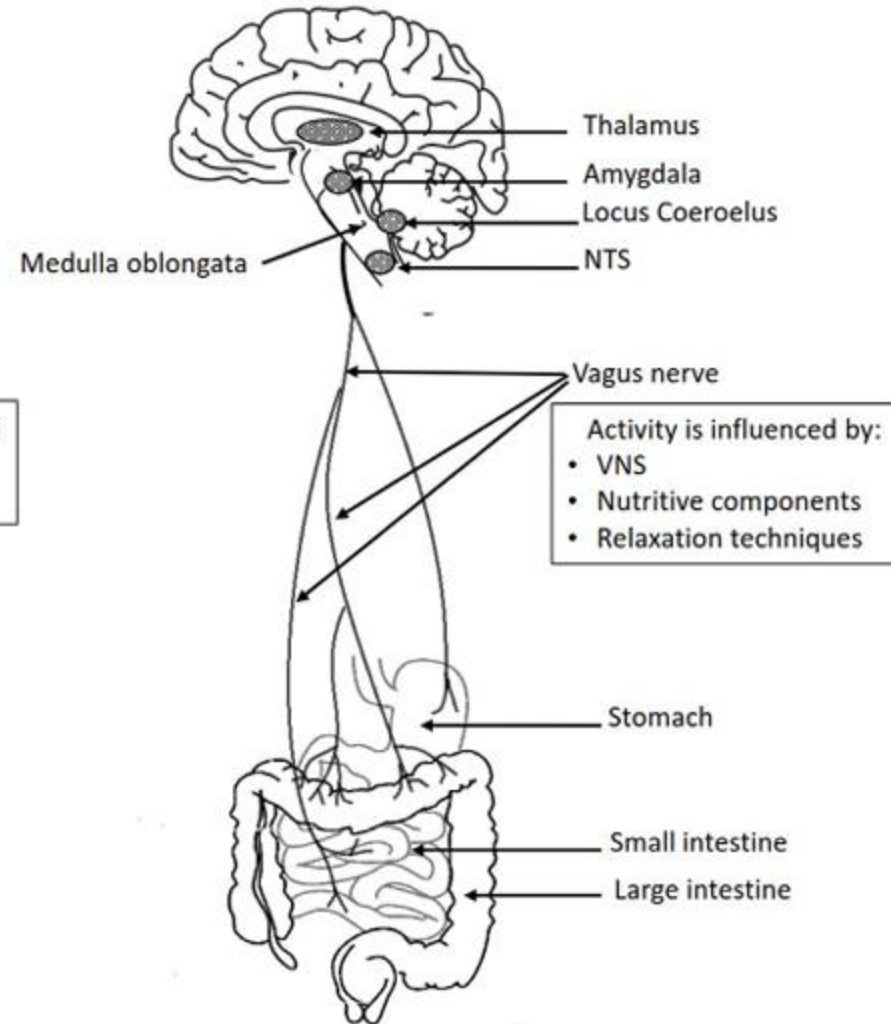


1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

Afferent and efferent connections



Anatomy



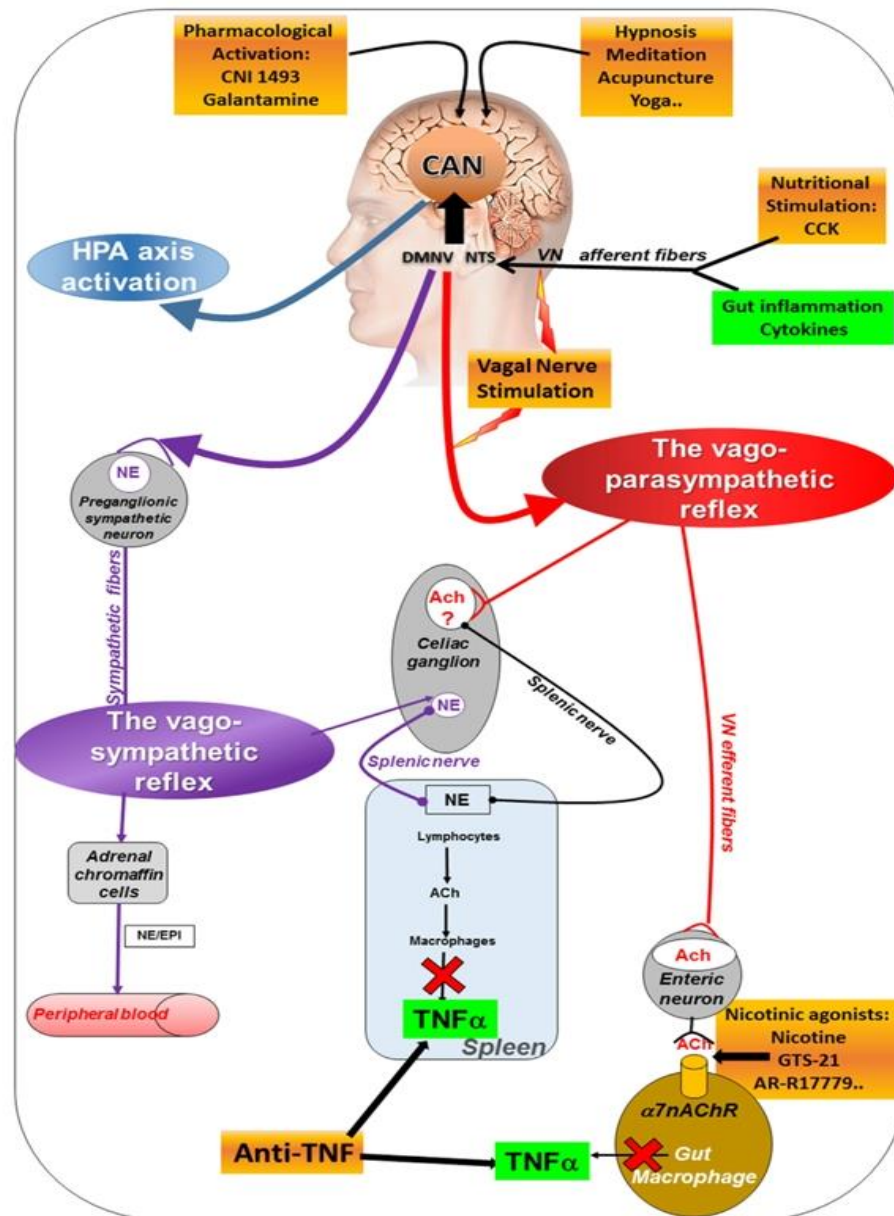
Disorders

Psychiatric disorders

- Major depression
- PTSD

Inflammatory GI Disorders

- Ulcerative Colitis
- Crohn's Disease



The Vagus Nerve in the Neuro-Immune Axis: Implications in the Pathology of the Gastrointestinal Tract

Bruno Bonaz^{1,2*}, Valérie Sinniger^{1,2} and Sonia Pellissier³

LOKAL ANESTEZİK İLE TEDAVİDE



1.NA KANALLARI
ÜZERİNDEN
MEMBRAN
EKSİTABİLİTESİNİ,
AKSİYON
POTANSİYELİ
OLUŞTURMA
YETİSİNİ BLOKE EDER.



2.EKSTRASELULER
MATRİKSE ETKİ;
LOKAL MATRİKS
DURUMUNDA VE
BİLGİ AKIŞINDA
DEĞİŞİKLİK



3.SİTOKİN
ÜRETİMİNDE
BASKILANMA;
PERİFERDE SİTOKİN
ÜRETEH HÜCRELERDE
HÜCRE MEMBRANI
STABİLİZASYONU



4.DİŞ UYARIMA KARŞI
HÜCRE KORUNMASI;
METABOLİK ASİT
ÜRÜNLERİN
TAMPONLANMASI,
SPESİFİK AĞRI YARATAN
İYONLARIN(K⁺,H⁺,
CA⁺⁺,REAKTİF O₂
TÜREVLERİNİN)
SALINIMININ
ÖNLENMESİ



5.SENSORYEL SİNİR
VE SİNAPSLARIN
BAĞLANTISININ
KESİLMESİ



6.MYELİNSİZ
(VEJETATİF) SİNİR
BAĞLANTISI
KESİLMESİ



7.DRASİC DORSAL KÖK
ASİDE DUYARLI
KANALLARIN
BAĞLANTISININ
KESİLMESİ İLE ARKA
KÖKLERE AĞRI
UYARISINDA
BLOKLANMA ELDE
EDİLİR.

LOKAL ANESTEZİKLERİN KLİNİK ETKİLERİ

- Lokal anestezik Antitrombotik
- Antiaritmik Antitm –nöroprotektif-DNA taşıma kompleksleri
- Analjezik Antiepileptik
- Antiinflamatuar Antiaging
- Antioksidan Nav kanalları
- Antidepresan K,Ca ve Na-K ATPase kanalları
- Antiallerjik Akt(protein kinaz B) ve Mtor yolakları
- Bronşial hiperaktivitenin engellenmesi Enerji algılayıcı kinaz AMPK
- Antibakteriyel-antiviral-antifungal Enzimler (PKA:cAMP bağımlı protein kinaz A)
- Ryanodin res (RyR) N-metil-D-aspartat res
- B-adrenerjik res Transmembran G-protein aracılı K,Ca kanalları
- Nikotinik asetilkolin reseptorleri

Anti-Inflammatory Characteristics of Local Anesthetics: Inhibition of TNF- α Secretion of Lipopolysaccharide-Stimulated Leucocytes in Human Blood Samples

by Stefan Weinschenk ^{1,*} , Carsten Weiss ² , Justus Benrath ³ , Volker von Baehr ⁴ ,
Thomas Strowitzki ¹  and Manuel Feißt ⁵ 

Background. Local anesthetics (LAs) have potent anti-inflammatory properties. Inflammatory down-regulation is crucial in diseases with overactive immune reactions, such as acute respiratory distress syndrome (ARDS) and chronic inflammation. We investigated the influence of four LAs, procaine, lidocaine, mepivacaine, and bupivacaine, on the reduction of tumor necrosis factor-alpha (TNF- α) secretion in lipopolysaccharide (LPS)-activated human leucocytes. **Methods.** Blood samples of 28 individuals were stimulated with LPS. The reduction of TNF- α production by each of the four LAs added (0.5 mg/mL) was measured and correlated with biometric variables. A response was defined as reduction to <85% of initial levels. **Results.** All four LAs down-regulated the TNF- α secretion in 44–61%: Bupivacaine (44.4%), lidocaine (61.5%), mepivacaine (44.4%), and procaine (50% of the individuals, “responders”). The TNF- α secretion was reduced to 67.4, 68.0, 63.6, and 67.1% of the initial values in responders. The effects in both patients and healthy persons were the same. Interindividual responses to LAs were not correlated with the duration or type of complaints, basal TNF- α serum level, sex, BMI, or age of responders. **Conclusions.** Four clinically relevant LAs (amid-LA and ester-LA) attenuate the inflammatory response provoked by LPS. They are potential candidates for drug repositioning in treating overactive immune reactions and chronic inflammation.

Sci. **2022**, *23*(6),
3283; <https://doi.org/10.3390/ijms23063283>

Review Article

Procaine—The Controversial Geroprotector Candidate: New Insights Regarding Its Molecular and Cellular Effects

Daniela Gradinaru ¹, Anca Ungurianu ¹, Denisa Margina ¹,
Maria Moreno-Villanueva ^{2,3} and Alexander Bürkle ³

Procaine was synthesized by Alfred Einhorn in 1905 and introduced in clinical practice as Novocain, becoming a local anaesthetic prototype. Procaine binds to membrane constituents and modulates a series of ion channels, interacts with membrane phospholipids, and induces changes in membrane fluidity depending on its concentration [20, 21]. Also, mitochondria, which are considered the powerhouses of the cell, are a potential target for general and local anaesthetics [22]. Procaine and its metabolites affect several biochemical and cellular processes like membrane conductance [20], oxidative phosphorylation [23], mitochondrial function and structure [24], monoamine oxidase activity [25], and DNA methylation [26]. Although Gerovital H3 (GH3) is a procaine-based preparation, its effectiveness has been disputed [27, 28]. Nevertheless, the antioxidant actions of procaine and GH3 were reported in several *in vitro* studies [29–31]. Also, it was reported that high concentrations (20 mM) of procaine inhibit DNA repair in bacteria [32].

In this context, we hypothesized that procaine might be a

The Radioprotective Effect of Procaine and Procaine-Derived Product Gerovital H3 in Lymphocytes from Young and Aged Individuals

Anca Ungurianu, Denisa Margina, Claudia Borsa, Cristina Ionescu, Gudrun von Scheven, Lucie Oziol, Philippe Faure, Yves Artur, Alexander Bürkle, Daniela Gradinaru ✉, Maria Moreno-Villanueva ✉

First published: 25 June 2020 | <https://doi.org/10.1155/2020/3580934> | Citations: 7

Academic Editor: Ji C. Bihl

- Since its discovery in 1905 and its employment in everyday medical practice as a local anesthetic, to its highly controversial endorsement as an “anti-aging” molecule in the sixties and seventies, procaine is part of the history of medicine and gerontoprophylaxis. Procaine can be considered a “veteran” drug due to its long-time use in clinical practice, but is also a molecule which continues to incite interest, revealing new biological and pharmacological effects within novel experimental approaches. Therefore, this review is aimed at exploring and systematizing recent data on the biochemical, cellular, and molecular mechanisms involved in the antioxidant and potential geroprotective effects of procaine, focusing on the following aspects: (1) the research state-of-the-art, through an objective examination of scientific literature within the last 30 years, describing the positive, as well as the negative reports; (2) the experimental data supporting the beneficial effects of procaine in preventing or alleviating age-related pathology; and (3) **the multifactorial pathways procaine impacts oxidative stress, inflammation, atherogenesis, cerebral age-related pathology, DNA damage, and methylation.** According to reviewed data, procaine displayed antioxidant and cytoprotective actions in experimental models of myocardial ischemia/reperfusion injury, lipoprotein oxidation, endothelial-dependent vasorelaxation, inflammation, sepsis, intoxication, ionizing irradiation, cancer, and neurodegeneration. This analysis painted a complex pharmacological profile of procaine: a molecule that has not yet fully expressed its therapeutic potential in the **treatment and prevention of aging-associated diseases.** The numerous recent reports found demonstrate the rising interest in researching the multiple **actions of procaine regulating key processes involved in cellular senescence.**, Article ID 3617042, 18 pages <https://doi.org/10.1155/2021/3617042>

Review Article

Procaine—The Controversial Geroprotector Candidate: New Insights Regarding Its Molecular and Cellular Effects

Daniela Gradinaru ¹, Anca Ungurianu ¹, Denisa Margina ¹,
Maria Moreno-Villanueva ^{2,3} and Alexander Bürkle ³

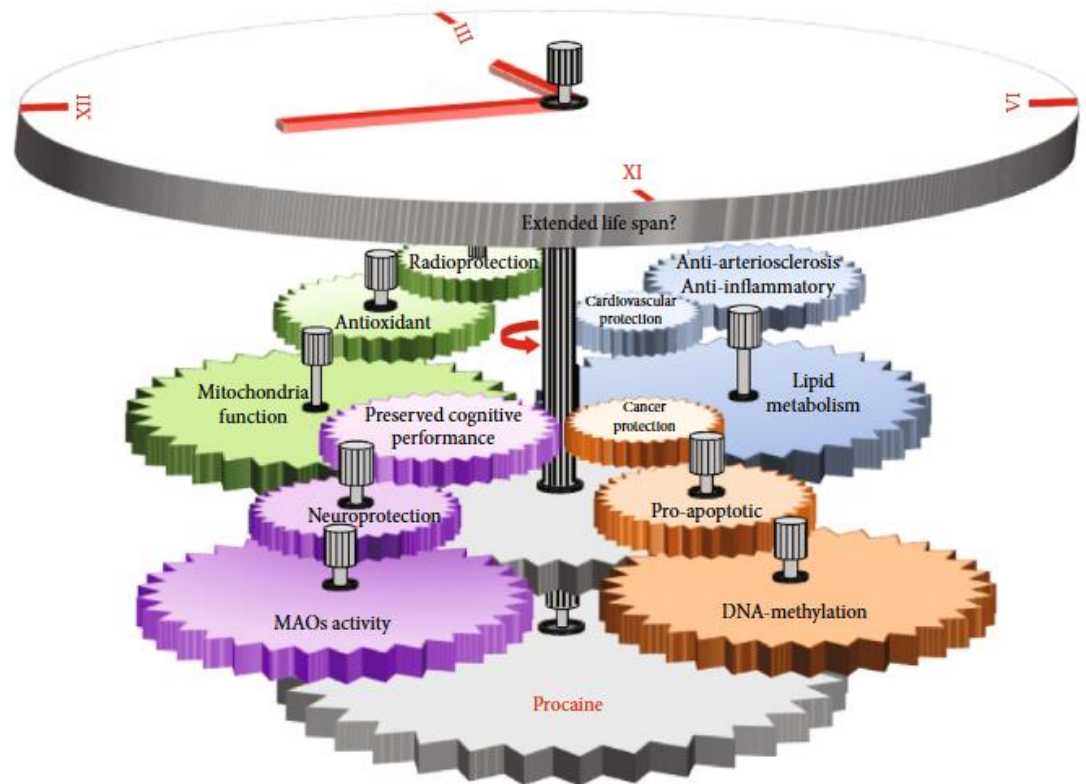


FIGURE 2: New biological and pharmacological effects of procaine—demonstrated within novel experimental approaches—which could acknowledge its consideration as a potential geroprotector candidate.

NÖRALTERAPİ İLE NELER YAPABİLİRİZ?

*Sempatik yüklenmenin düzeyi (Kibler cilt kaydırma testi)
KC,Böbrek, adrenal gland vb..

*Bozucu alan aranması ve tedavisi (Adler Langer muayenesi)

*Lokal enjeksiyonlar(quaddel, kas, periost, tendon,ligaman, eklem kapsülü, Aku. Noktaları,perivenöz enj.)

*Segmental tedavi (spinal ve sempatik segment, organ spesifik enjeksiyonlar)

Trigger noktalar(M. Trapezius, M. Soleus...)

Ganglion enjeksiyonları
(Çöliak, L2 semp. Gang. PP, Oticum,Stellat,Supremum... kranial semp, parasemp.)

*Vagal tonusun durumunu belirlemek ,
N.Trigeminus –N.Vagus bağlantısı

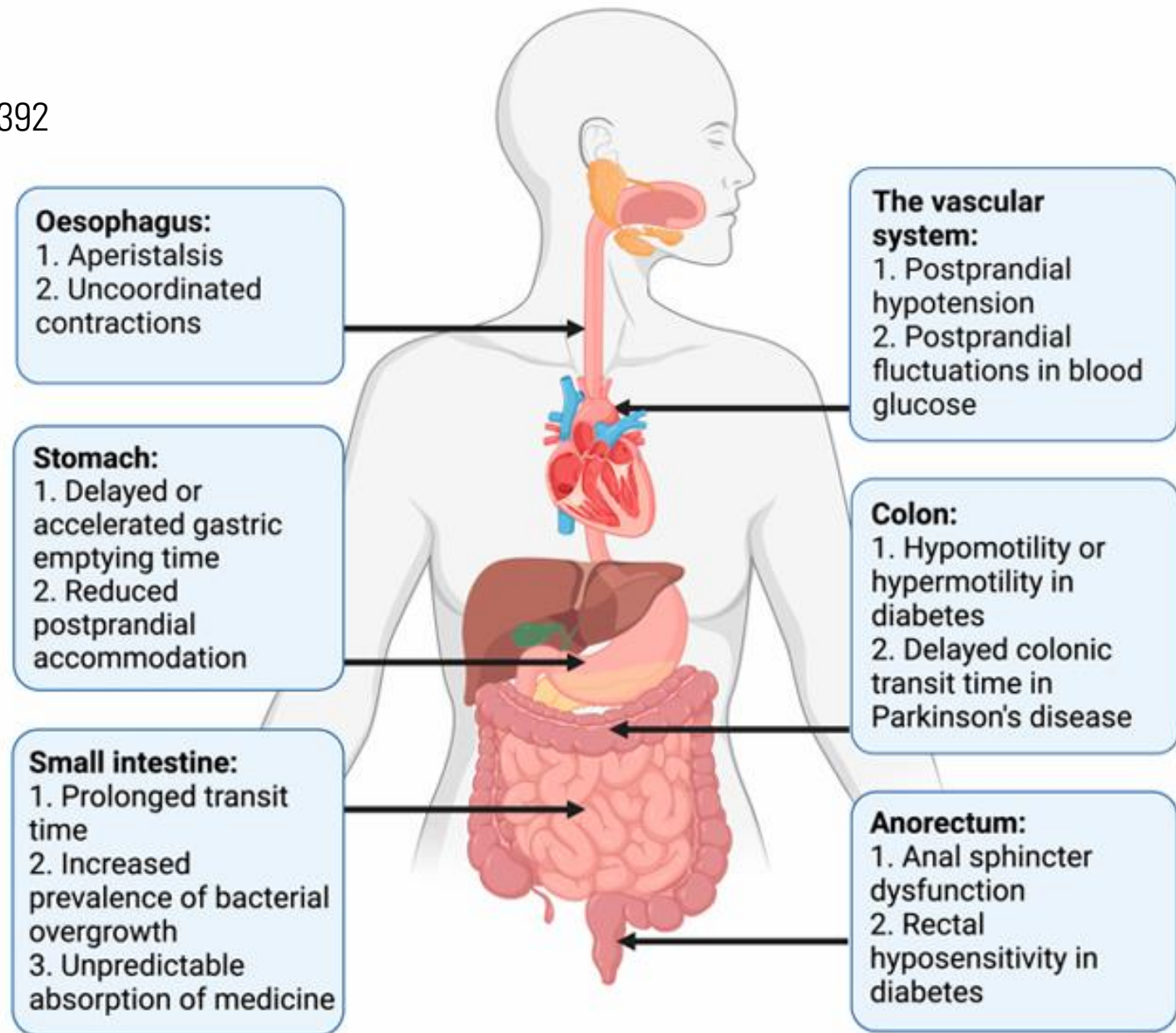
*Lenfoid organ desteği
(Tonsil,i. bağırsak, dalak, periferik lenf nodları, nörolenfatik noktalar, Belt lenfatik drenaj noktaları, timüs, sakral kanal)

*Hormonal eksen (hipofiz, tiroid, g. supremum, i.v, G.çöliak,urogenital organlar

J. Clin. Med. 2021, 10, 1392.
<https://doi.org/10.3390/jcm10071392>

Review Assessment of
Gastrointestinal
Autonomic
Dysfunction: Present
and Future
Perspectives Ditte S.
Kornum 1,2,* , Astrid
J. Terkelsen 3, Davide
Bertoli 4, Mette W.
Klinge 1, Katrine L.
Høyer 1,2

Figure 1. Motility disturbances
related to autonomic dysfunction
in each gastrointestinal
segment.



BAĞIRSAK İÇİN NÖRALTERAPİ PROTOKOLÜ

Lokal ve segmental
terapi

T9_L2 S2-S4, C3-C4

Genişletilmiş segment

Abdominal TNlar.

Hopfer karın tacı

Epigastrium çukuru

Karaciğer, S.K., Böbrek
segmental alanı

G. Çöliak, G. Stellatum

Sakral kanal

- Hormonal Aks

Tiroid, genital alan, tonsiller, G. supremum

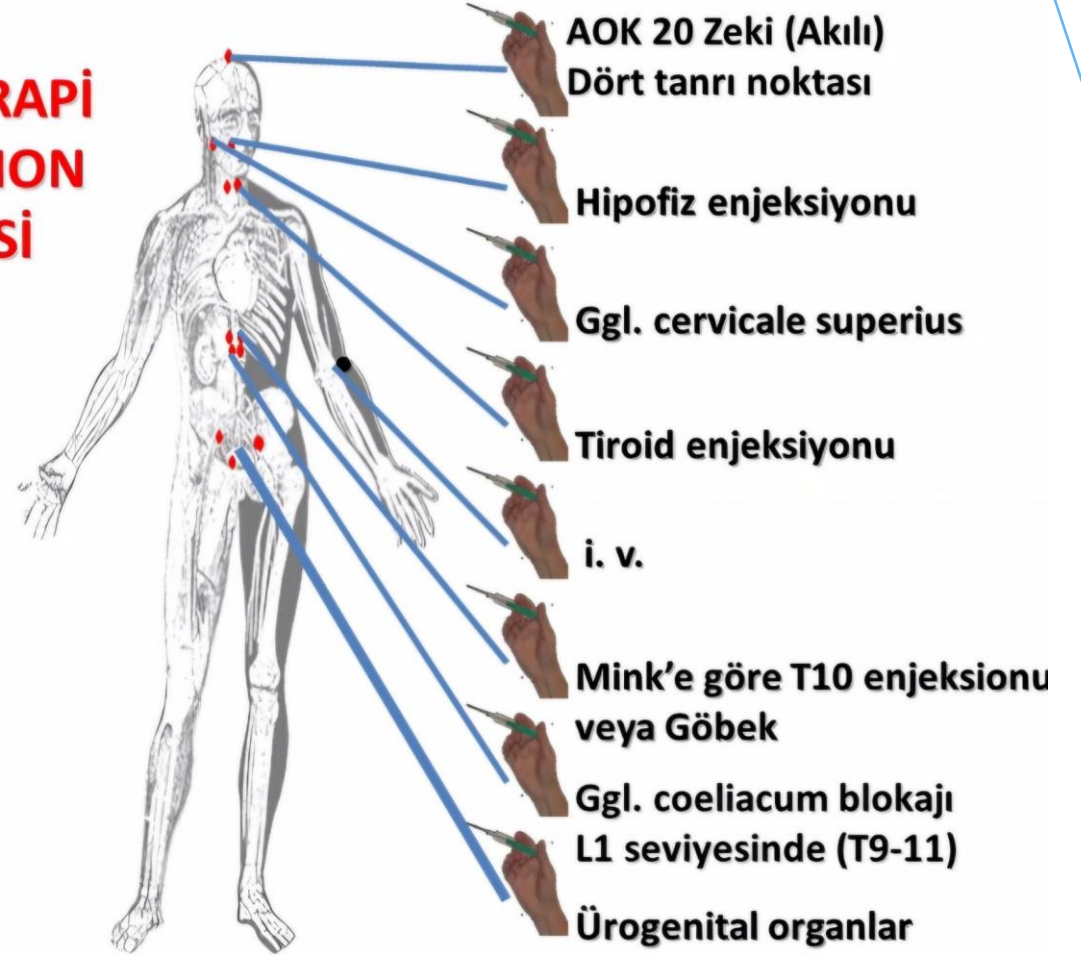
- Bozucu Alan, Genişletilmiş segment

Nörolenfatik noktalar, diyafram, göbek,
diş, sinüsler, skar, dövme, pelvik
enjeksiyonlar

- IV Prokain Baz İnfüzyonu

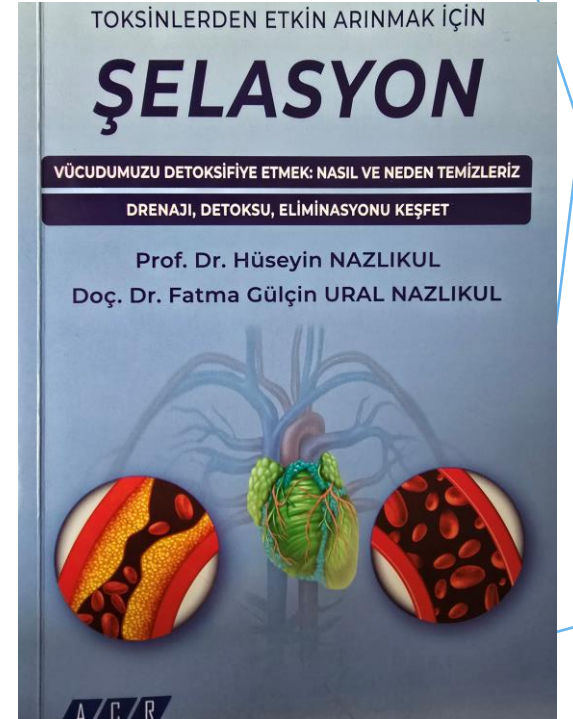
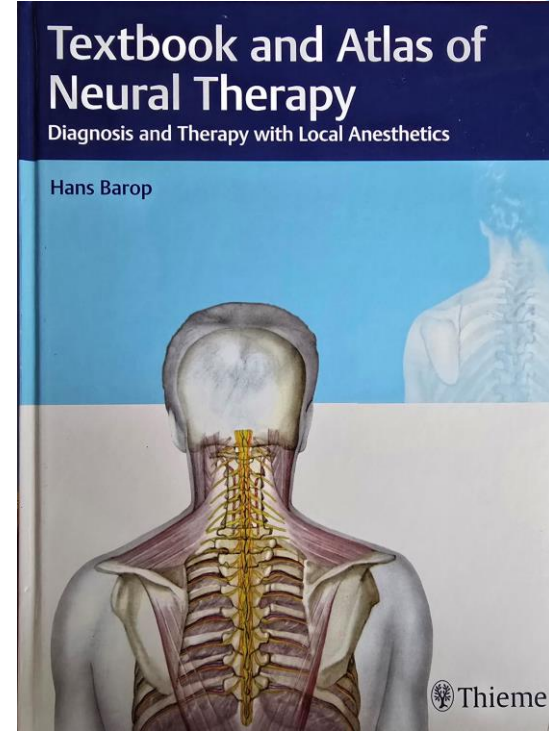
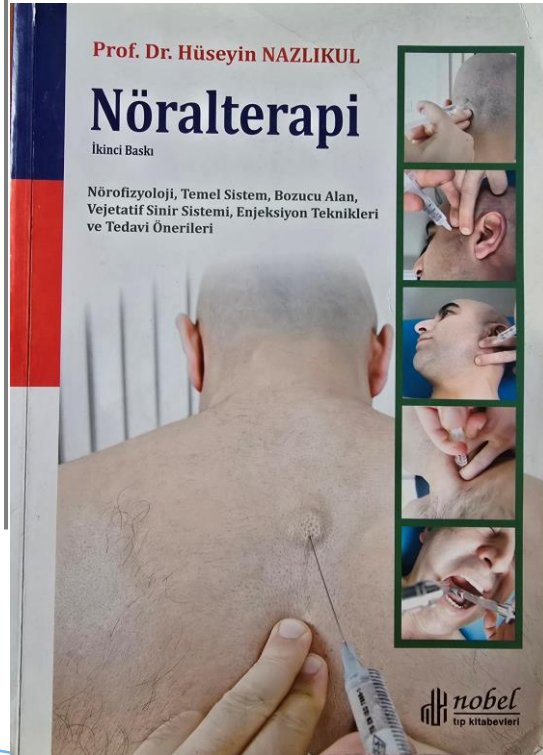
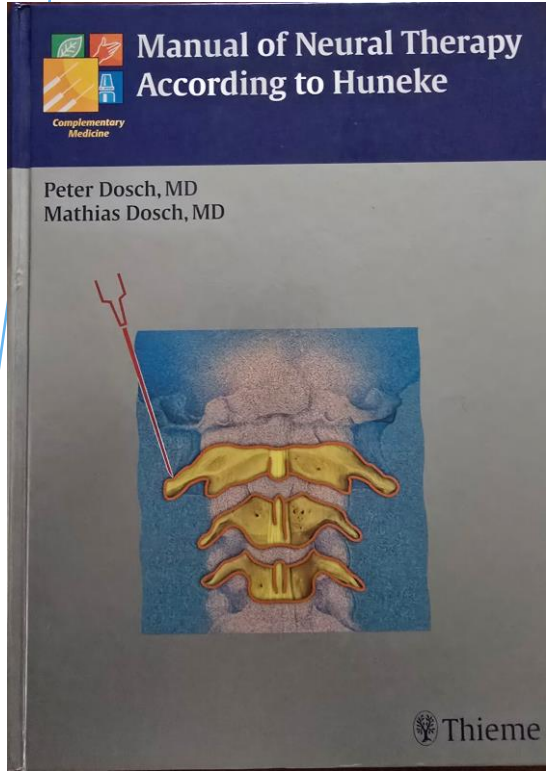
HPA AKSI YAKLAŞIMI

NÖRALTERAPİ İLE HORMON TEDAVİSİ



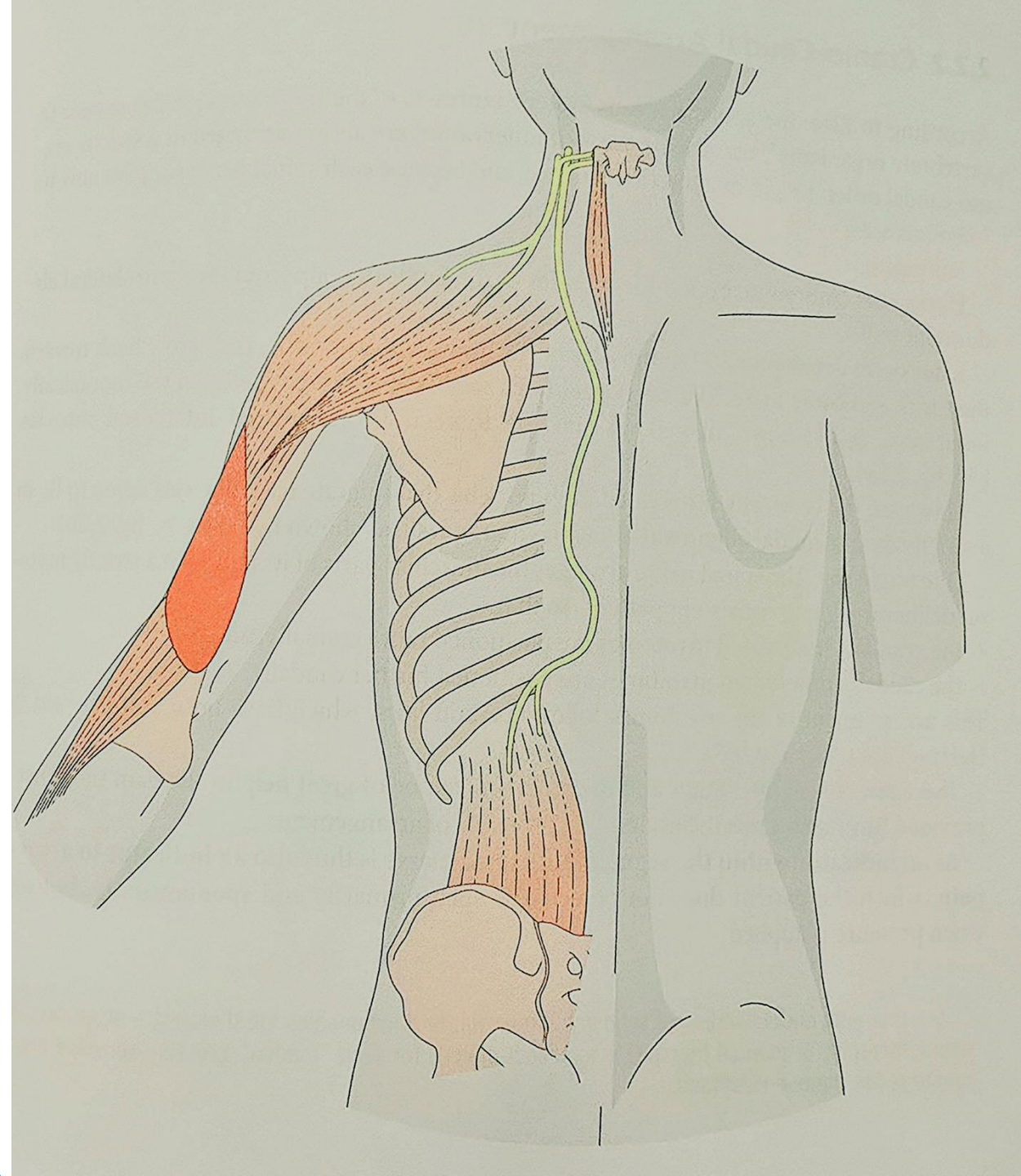
Prof. Dr.Hüseyin Nazlıkul,Doç.Dr. F.Gülçin Nazlıkul

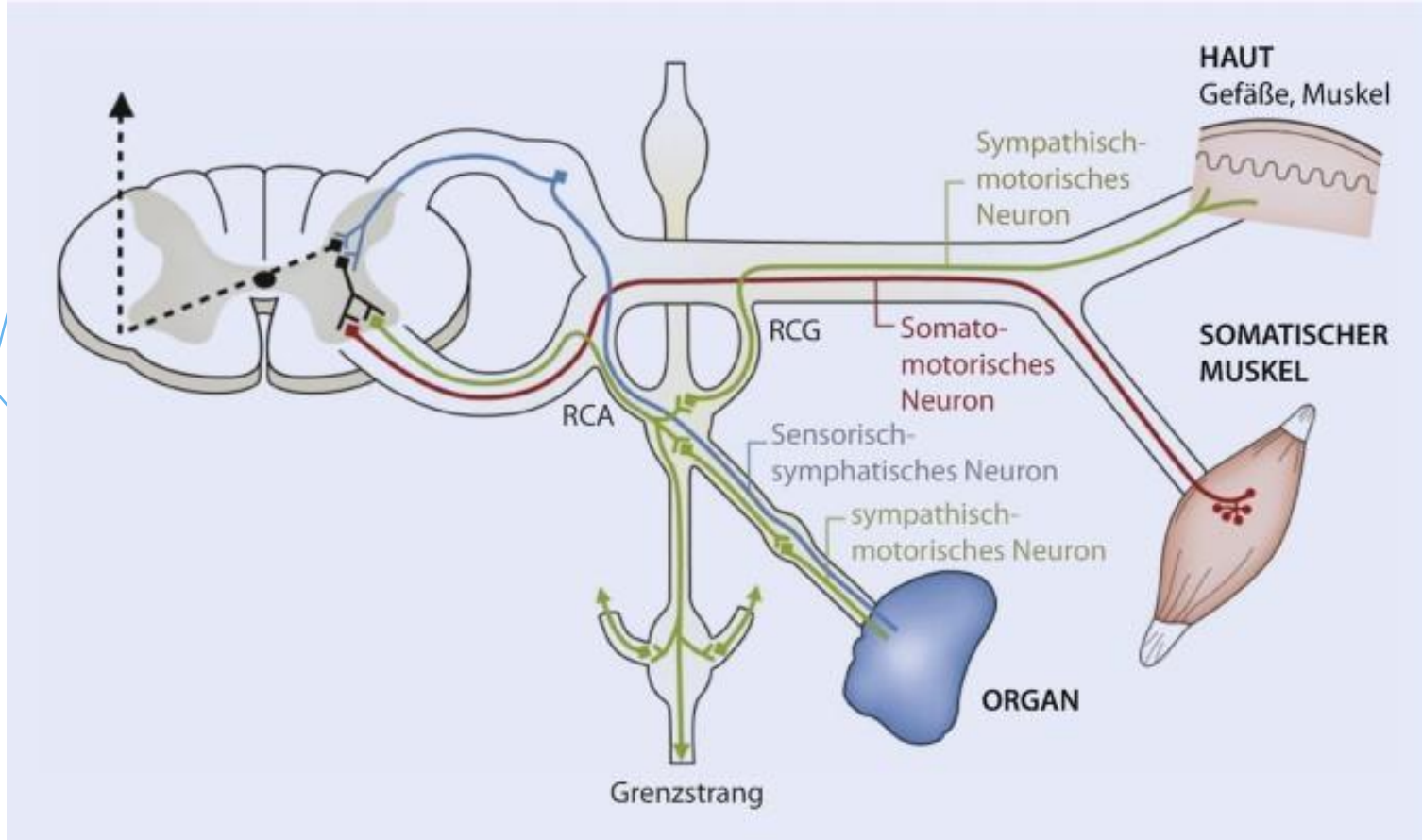
Şelasyon kitabından alıntıdır



PERİFERİK SPİNAL SEGMENTASYON

- Spinal sinirler segmental kısımların bağlantısını sağlar. Deride ; dermatom, kasta; myotom, iskelette; sklerotom, visseral dokuda; enterotom, nöral kısımda nörotom fonksiyonel bir ünite oluşturur





*NÖRALTERAPI İLE
BEDENDE HEDEFL ENEN
SEGMENTE ULAŞMAK
MÜMKÜN*

ORGAN	SEGMENTAL PROJEKSİYON ALANLARI		
	Torakal, lomber ve sakral omurga segmentleri	Omuz ve boyun segmenti	Trigeminus alanları
Kalp	T1-T6 sol	C3-C4 sol	V1-V2-V3 sol
Akciğer, bronşlar	T3-T9 bilateral	C3-C4 bilateral	(V1-V2-V3)
Özofagus	T5-T6 bilateral	C3-C4 bilateral	(V1-V2-V3)
Mide	T5-T9 sol	C3-C4 sol	V1 (V2-V3) sol
İnce barsak ve kolon ascendens	T9-L1 bilateral	(C3-C4)	(V1-V2-V3)
Kalın barsak, kolon descendes ve rektum	T12-L2 ve S2-S4		
Karaciğer ve safra kesesi	T7-T11 sağ	C3-C4 sağ	V1 sağ
Pankreas	T8 sol	C3-C4 sol	
Dalak	T8-T9 sol	C3-C4 sol	
Böbrek ve üreter	T9-L2 bilateral veya sorunlu taraf	(C3-C4 bilateral)	
İdrar kesesi	T11-L2 ve S2-S4 bilateral		
Uterus, adneks, testis, pelvis organları	T11-L2 ve S2-S4 bilateral		

SEGMENTAL SEMPATİK İNNERVASYON

- T1-T4 Orbita, baş, boyun, tiroid
- T1-T6 Özofagus ,trakea, bronşlar ,meme, kalp, akciğerler
- T2-T8 Üst ekstremiteler
- **T6-T10 Mide, pankreas ,dalak**
- **T5-T9 Karaciğer, safra kesesi, duodenum üst**
- **T10-T12 Böbrek, adrenal gland, ince bağırsak**
- **T10-L2 Kalın bağırsak**
- T12-L2 Mesane, prostat ,rektum, uterus, testis
- T9-L2 Alt ekstremiteler

BOZUCU ALAN

- Bedenin herhangi bir yerinde, kendi mekanizmaları ile ortadan kaldırılamayan, organizasyon devrelerini labilleştiren, self organizasyonu bozan kronik irritasyon alanlarıdır.
- Postop. skarlar, aşılar, yanık skarları, dövme, gömülü, çekilmiş diş alanları, periodontit, abseler, sinüsler, tonsiller, doku implantları, kozmetik uygulamalara bağlı olabilir.
- Hasarlı dokuda kronik subliminal irritasyon,
- Kronik düşük dereceli inflamasyon varlığında yeni impulslar suprasegmental iletilip ağrı, inflamasyon
- Polisegmental, çapraz segmental, sempatik trunkus ve vagal sistem arası iletilen uyarılar nonsegmental genişleme
- Nöronal disfonksiyon, inflamasyon, sitokin uyarımı, immun yanıt,
- Santral duyarlılık ve nöroplastisite

GENİŞLETİLMİŞ SEGMENT

Günümüzde segmental sınır yerine çapraz segmental duysal proseslerin, nöroplastisite ve immun etkileşimin yarattığı nöroinflamasyondan söz ediliyor.

Bozucu Alan tanımı yerine Genişletilmiş Segment kullanılıyor.

Nöromodulasyona uğramış tetikleyici alan LA ile uyartıldığında eş zamanlı olarak limbik sistemde kayıtlanan (bilişsel anı izi) engramların selektif olarak silinmesi hem sinir sisteminde işleme ile yeniden çerçeveleme, hem doku perfüzyonunda düzenlenme yaratıyor.

NÖRAL TERAPİDE NE ELDE EDERİZ?

Ağrı tedavisi

Bağ dokusunun düzenlenmesi, latent asidozun giderilmesi

Sedasyon, Psikolojik regülasyon

Hormonal dengenin sağlanması

Lenfatik drenajın sağlanması

Immun sistemin regülasyonu

Nöroimmunolojik düzenlenme

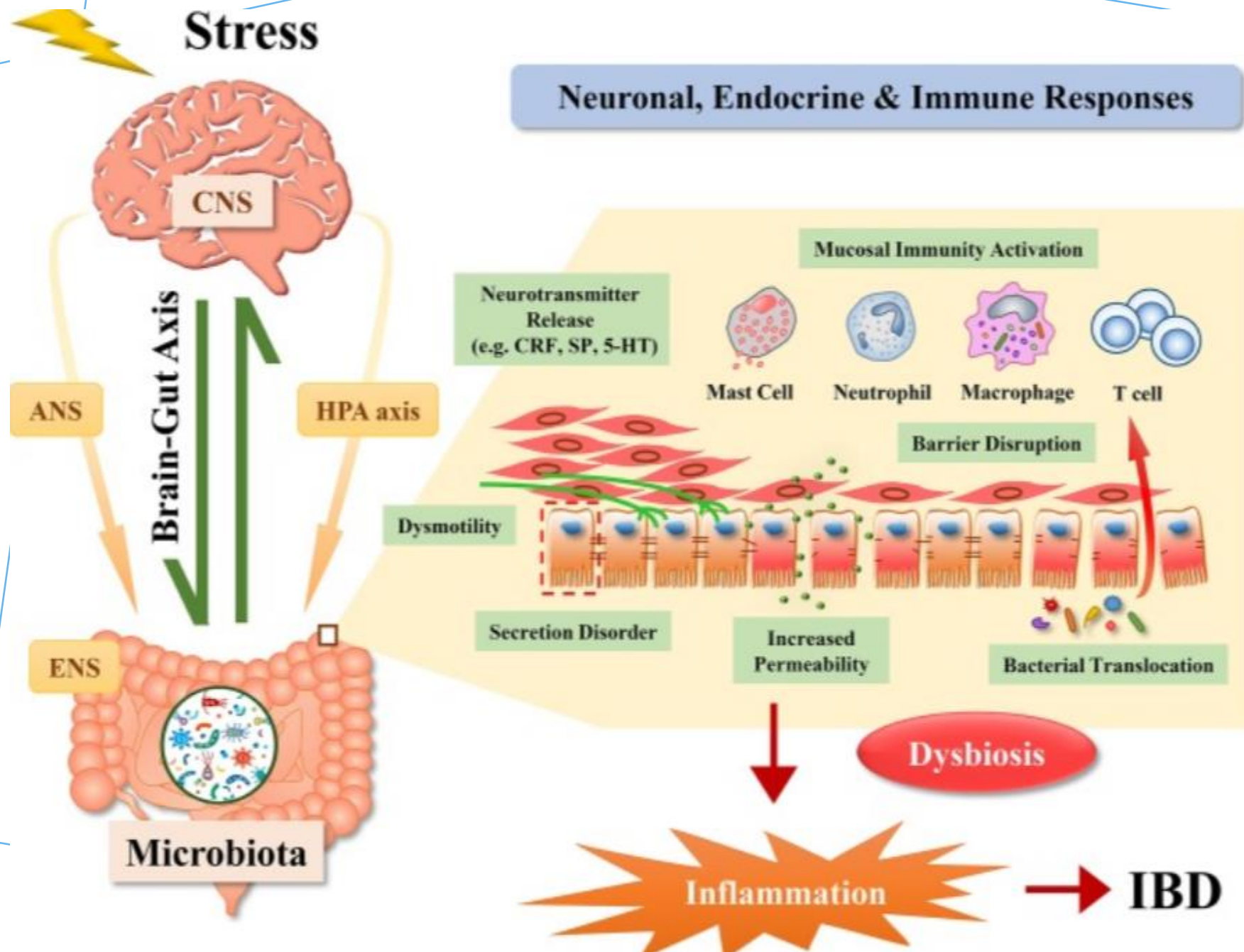
Kanlanmada artış, perfüzyonda düzelme, hipoksinin ortadan kalkması

Periferik vazodilatasyon

Serbest radikallerin uzaklaştırılması, detoks organlarının desteklenmesi

OSS dengelenmesi ile organ ve doku hasarının iyileşmesi

Bozucu alanların giderilmesi



Review > Front Pediatr. 2019 Oct 24;7:432. doi: 10.3389/fped.2019.00432. eCollection 2019.

Stress Triggers Flare of Inflammatory Bowel Disease in Children and Adults

Yue Sun¹, Lu Li¹, Runxiang Xie¹, Bangmao Wang¹, Kui Jiang¹, Hailong Cao¹

Affiliations + expand

PMID: 31709203 PMCID: PMC6821654 DOI: 10.3389/fped.2019.00432

Original Articles

Hypnosis and Irritable Bowel Syndrome: A Review of Efficacy and Mechanism of Action

Gabriel Tan PhD, D. Corydon Hammond & Joseph Gurralla

Pages 161-178 | Published online: 21 Sep 2011

“ Cite this article <https://doi.org/10.1080/00029157.2005.10401481>



frontiers

Frontiers in **Psychology**

TYPE Mini Review

PUBLISHED 03 June 2024

DOI 10.3389/fpsyg.2024.1389911



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EDITED BY

Juan V. Luciano,
Autonomous University of Barcelona, Spain

REVIEWED BY

Diego Maestri

Gut-directed hypnosis and hypnotherapy for irritable bowel syndrome: a mini-review

Winfried Häuser^{1,2*}

Special Report

The role of hypnotherapy for the treatment of inflammatory bowel diseases

Gabriele Moser 

Pages 601-606 | Published online: 12 May 2014

“ Cite this article  <https://doi.org/10.1586/17474124.2014.917955>



Abstract

Inflammatory bowel diseases (IBD) are chronic disorders of unknown aetiology which are characterized by episodes of exacerbations and remissions. There is evidence that perceived distress contributes to IBD symptom flares; anxiety and depression are frequently found in patients with the active disease. Because there is no cure, treatment has to focus on prevention of complications, induction/maintenance of remission and improvement of quality of life. Gut-directed hypnotherapy (GHT) has been used successfully in functional gastrointestinal disorders. Few experimental studies and case reports have been published for IBD; GHT increases the health-related quality of life and reduces symptoms. Additionally, GHT seems to have an immune-modulating effect and is able to augment clinical remission in patients with quiescent ulcerative colitis.

Intestinal Microbiome in Irritable Bowel Syndrome before and after Gut-Directed Hypnotherapy

Johannes Peter¹, Camille Fournier², Bettina Keip³, Nina Rittershaus⁴, Nicola Stephanou-Rieser⁵, Marija Durdevic⁶, Clemens Dejaco⁷, Maria Michalski⁸, Gabriele Moser⁹

Affiliations + expand

PMID: 30453528 PMCID: [PMC6274728](#) DOI: [10.3390/ijms19113619](#)

Conclusion: Reductions in IBS symptoms and psychological burden were observed after gut-directed hypnotherapy, but only small changes were found in intestinal microbiota composition. The findings suggest that **hypnosis may act by central nervous impact and other factors largely independent from microbiota composition modulating the brain-gut axis, possibly alterations in vagus nerve functioning and microbiota metabolism.**

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Hypnotherapy for Inflammatory Bowel Disease Across the Lifespan

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Abstract

Inflammatory bowel disease (IBD) is an autoimmune disorder characterized by lifelong relapsing gastrointestinal symptoms and associated with high rates of chronic pain, depression, and anxiety. In this review the author covers the existing literature including randomized controlled studies, open trials, and case reports as well as expert opinion in evaluating how hypnotherapy can be most beneficial in adolescents and adults with IBD. Hypnotherapy evidence for functional gastrointestinal disorders (FGIDs) is also reviewed as many of the gut-focused hypnotherapy (GHT) approaches used in IBD trials were developed for this latter population. Collectively, the strongest evidence of use of hypnotherapy is its association with reduced IBD-related inflammation and improved health-related quality of life with mixed results in terms of its effects on psychological and pain outcomes in adults with IBD. Studies of hypnotherapy for FGID symptoms show consistently more positive results. Post-operative hypnotherapy may also be helpful based on findings in other surgical samples. Adolescents with IBD have not been as systematically studied but small case series support the use of hypnotherapy to improve inflammation and pain. Future studies are needed to better delineate the specific brain-gut pathways which are most influenced by hypnotherapy in the IBD population and to investigate the longer-term course of the positive short-term findings.



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Antalya

*İLGİNİZE, SABRINIZA
TEŞEKKÜR EDERİM.*